

# Purchasing Week

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\$6 A YEAR U.S.  
AND CANADA \$25 A YEAR  
FOREIGN

## Star on the Rise for Product-Conscious P.A.'s

### Drug Companies Starting Refunds On Welfare Sales

New York—Drug manufacturers have begun giving rebates to states on products purchased for welfare programs.

Merck, Sharp & Dohme Div. of Merck & Co., the first company to put the plan into operation, has already made payments of \$3,119.07 to Florida and \$4,485.20 to California.

These rebates represent 10% of the cost of Merck drugs sold in both states during January for prescriptions for persons on public welfare.

E. R. Squibb & Co., a division of Olin Mathieson, has not handed out any refund checks yet, but the company is receiving reports from Rhode Island on that state's purchases of Squibb products and plans to make its first 10% rebate soon.

Robinson Laboratories said it will make 11% refunds on drug purchases.

The rebate plans have been designed by the manufacturers for those states with public assistance programs that provide for distribution.

(Turn to page 42, column 2)

### Brass Users Pass Along Latest Ingot Price Hikes

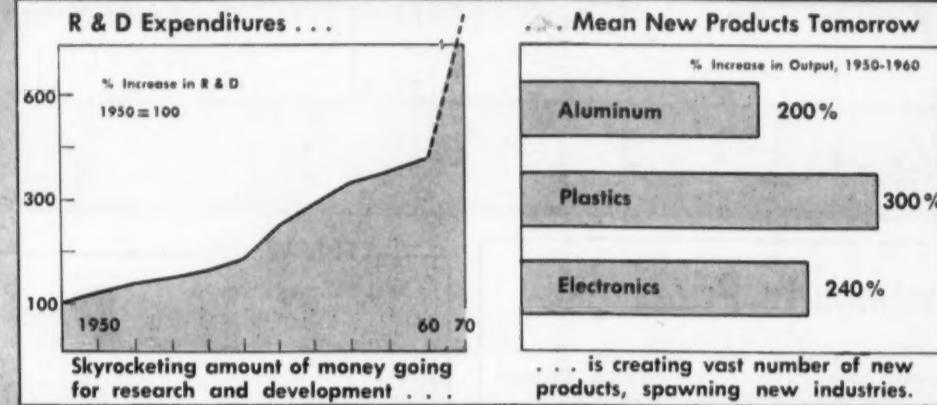
New York—The steep rise in brass and bronze ingot prices over the past month is starting to affect user industries' price tags.

Boosts are in the works for plumbing fixtures—especially faucets and built-in trim—and cost pressure is building up for industrial fittings, nonferrous machinery parts, and other product areas which make their castings from these ingots.

"We're raising our cast brass line 5% to 7% on April 24,"

(Turn to page 8, column 4)

### R & D EXPENDITURES STILL SOARING



### Steel Buyers See Gradual Increase in Orders But Keep Pressure on Prices, Quick Delivery

#### Antitrusters Give Tips To States on the Prowl For Price-Fix Rebates

Washington—Legal officials from 15 to 20 states that are considering filing damage claims in the electrical equipment price-fixing cases are scheduled to meet here today (April 10) to discuss damage suits with lawyers from the Dept. of Justice Antitrust Div.

Justice Dept. attorneys will make suggestions on how the states should proceed in filing damage claims and help them through the maze of information included in the indictments handed down in the cases.

A total of 29 companies were named in the indictments. All pleaded guilty or no defense to charges of conspiring to fix prices.

General Electric Co., one of the 29 defendants, last week retained Clark Clifford, special

(Turn to page 42, column 1)

New York—Steel buyers are warning mills and warehouse suppliers that, while second-quarter orders are increasing, there will be no relaxation in buyer pressures on prices and demands for quick deliveries.

Major buyers believe availability of steel will remain relatively unchanged through the second quarter, although lead time for some products is lengthening slightly in the Midwest.

A new quarterly report by the NAPA Steel Committee says 83% of buyers contacted in a survey can obtain their mill requirements in a month or less. And 95% are confident prices will remain steady to the fourth quarter.

Spotchecking warehouse operators around the country last week, P/W found few indications that their increasing business (up 10% in the first quarter) would permit them to withdraw price concessions granted for competitive reasons in recent months—at least until after midyear.

"As far as price is concerned," said the sales vice president of a large Chicago service center, "the upturn in mill production is having no effect on the warehouse business." He said: (1) Buyers still are price conscious, and (2) none has indicated he will "relent" on delivery times.

In fact, the picture last week,

#### Alcoa Jacks Up Prices On Small Lots of Ingot

Pittsburgh—The small order cost of aluminum ingot went up last week, reflecting the preoccupation of the industry on the subject of "Whither prices?"

Aluminum Co. of America increased quantity extras on ingot orders under 5,000 lb., saying the changes were made to reflect more accurately its costs in handling small orders.

The Alcoa move caught other aluminum makers by surprise, but there appeared to be no immediate dissenters. Reynolds Metals Co. said it considered the Alcoa increase a "step in the right direction."

A Kaiser Aluminum spokesman

(Turn to page 41, column 2)

#### In Line With the Trend, P/W Inaugurates New R&D Feature, Page 28

New York—The next couple of weeks should bring dramatic conviction—if any is needed—that the United States' new-product binge is here for keeps. By inference, this means that the product-engineering-oriented P.A.'s star continues on the rise, too.

Here are some key pointers:

• This year's big product shows (among them, the AMA Packaging Exposition that opens in Chicago today) are loaded with new eye-catchers.

• *Chemical Week*, a McGraw-Hill publication, has just reported that "this year will see most of the country's leading chemical producers carrying out the biggest research and development programs they've ever undertaken."

• The McGraw-Hill Dept. of Economics' 1961 survey of coming capital expenditures, now being tabulated, likely will repeat recent heavy emphasis on research and development items.

• Steel, lead, zinc, copper, and other basic industries are concentrating on research and development advances not only to keep up with ever more sophisticated needs of space equipment builders but also to meet the competitive inroads of rival materials.

The chart above portrays some of the impact of research and development spending. P/W's new R & D column on page 28 will provide you a monthly roundup of products just emerging from the research labs.

Last year a record \$12.6-billion was spent for research and development—double the 1955 total. And indications are that current spending levels will increase.

(Turn to page 42, column 4)

#### This Week's

## Purchasing Perspective

APRIL 10-16

By now every economist worth his salt has had a chance to interpret the apparent new trend of business activity in terms of his own favorite statistics. Leaving the official figures to the experts (most of whom happily agree business is looking up), we herewith list some buyer-seller comments gleaned from around the country. For the most part it's a mixed-up pattern but with basically optimistic tones.

• Firms exhibiting at the recent Western Metal Show in Los Angeles reported an "unexpectedly high" number of inquiries for product information. Metalworking industry officials interpret this, along with some pretty substantial on-the-spot sales, as indicating an economic upswing in the West.

• In Chicago, Link-Belt Co. said its estimating departments have been "extremely busy" for some time preparing quotes in response to "increasing numbers" of inquiries.

• In Cleveland, the latest purchasing agents business survey

(Turn to page 41, column 4)

### P/W PANORAMA

• Purchasing Is Calling on Brain Trusts more and more to help handle the complex problems that arise in these times of specialization. Pages 24 and 25 tell who is using these brain trusts, what they do, and how they go about it.

• The Inventory Revolution and What It Means is analyzed in this week's "Professional Perspective." Consultant F. Albert Hayes, former president of the NAPA, discusses this significant chapter in the history of purchasing on page 18.

• This Week's Session of "School for Strategists" takes up problems involving storage space and penalty costs. These games on page 38 may put you on the track of an improved system of ordering. And they'll give you some fun, besides.

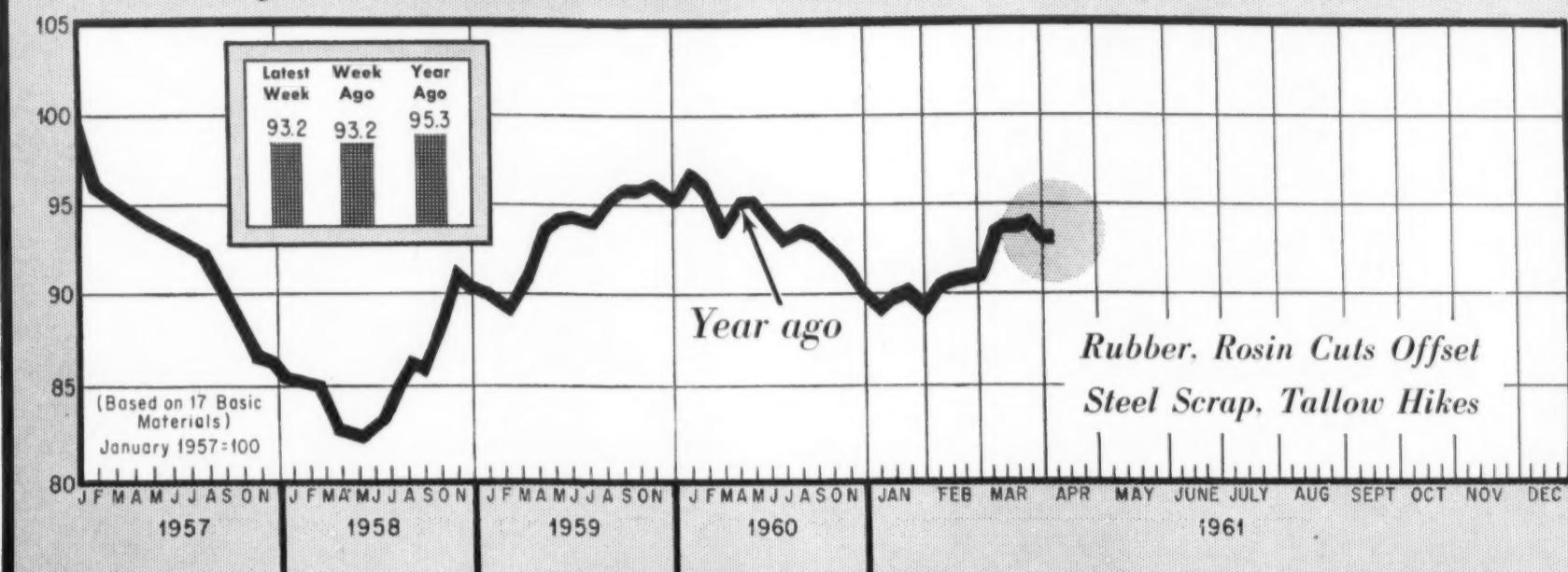
• The Pacific Northwest Has Been Needing a shot in the industrial arm and is hoping the Century 21 exposition will provide it. The "Seattle Perspective" on page 22 tells a bit about the exposition and about the area's economic condition.

#### Seaway May Open Late

Ottawa—St. Lawrence Seaway officials said severe ice conditions probably would delay the scheduled April 15 opening of the international waterway. Ice last week ran two to three feet thick at some points, and Seaway experts said April 20 or later would be a more realistic starting date.

## Purchasing Week Industrial Materials Price Barometer

This index, based on 17 basic materials, was especially designed by the McGraw-Hill Department of Economics.



### This Week's Commodity Prices

#### METALS

	Apr. 5	Mar. 29	Year Ago	% Yrly Change
Pig iron, Bessemer Pitts., gross ton.....	67.00	67.00	67.00	0
Pig iron, basic, valley, gross ton.....	66.00	66.00	66.00	0
Steel, billets, Pitts., net ton.....	80.00	80.00	80.00	0
Steel, structural shapes, Pitts., cwt.....	5.50	5.50	5.50	0
Steel, structural shapes, Los Angeles, cwt.....	6.20	6.20	6.20	0
Steel, bars, del., Phila., cwt.....	5.98	5.98	5.975	+ .1
Steel, bars, Pitts., cwt.....	5.675	5.675	5.675	0
Steel, plates, Chicago, cwt.....	5.30	5.30	5.30	0
Aluminum, pig, lb.....	.26	.26	.26	0
Secondary aluminum, #380 lb.....	.226	.225	.25	- 9.6
Copper, electrolytic, wire bars, refinery, lb.....	.286	.286	.326	-12.3
Brass, yellow, (sheet) lb.....	48.10	48.10	50.57	- 4.9
Lead, common, N.Y., lb.....	.11	.11	.12	- 8.3
Nickel, electrolytic, producers, lb.....	.74	.74	.74	0
Tin, Straits, N.Y., lb.....	1.045	1.043	.995	+ 5.0
Zinc, Prime West, East St. Louis, lb.....	.115	.115	.13	-11.5

#### FUELS†

Fuel oil #6 or Bunker C, Gulf, bbl.....	2.20	2.20	2.10	+ 4.8
Fuel oil #6 or Bunker C, N.Y., barge, bbl.....	2.62	2.62	2.47	+ 6.1
Heavy fuel, PS 400, Los Angeles, rack, bbl.....	2.10	2.10	2.15	- 2.3
Lp-Gas, Propane, Okla., tank cars, gal. (net price)....	.04	.04	.045	-11.1
Gasoline, 92 oct. reg., Chicago, tank car, gal.....	.115	.115	.116	- 0.9
Gasoline, 84 oct. reg., Los Angeles, rack, gal.....	.103	.103	.11	- 6.4
Kerosene, Gulf, Cargoes, gal.....	.099	.099	.09	+10.0
Heating oil #2, Chicago, bulk, gal.....	.095	.095	.088	+ 8.0

#### CHEMICALS

Ammonia, anhydros, refrigeration, tanks, ton.....	94.50	94.50	90.50	+ 4.4
Benzene, petroleum, tanks, Houston, gal.....	.34	.34	.34	0
Caustic soda, 76% solid, drums, carlots, cwt.....	4.80	4.80	4.80	0
Coconut oil, inedible, crude, tanks, N.Y. lb.....	.129	.13	.18	-28.4
Glycerine, synthetic, tanks, lb.....	.273	.273	.293	- 6.8
Linseed oil, raw, in drums, carlots, lb.....	.167	.167	.171	- 2.3
Phthalic anhydride, tanks, lb.....	.195	.195	.165	+18.2
Polyethylene resin, high pressure molding, carlots, lb.....	.275	.275	.325	-15.4
Polystyrene, crystals, carlots, lb.....	.18	.18	.215	-16.3
Rosin, W.G. grade, carlots, fob N.Y. cwt.....	15.65	16.50	14.00	+11.8
Shellac, T.N., N.Y. lb.....	.31	.31	.31	0
Soda ash, 58%, light, carlots, cwt.....	1.55	1.55	1.55	0
Sulfur, crude, bulk, long ton.....	23.50	23.50	23.50	0
Sulfuric acid, 66% commercial, tanks, ton.....	22.35	22.35	22.35	0
Tallow, medible, fancy, tank cars, N.Y. lb.....	.081	.076	.06	+35.0
Titanium dioxide, anatase, reg. carlots, lb.....	.255	.255	.255	0

#### PAPER

Book paper, A grade, Eng. finish, Untrimmed, carlots, cwt.....	17.75	17.75	17.75	0
Bond paper, #1 sulfite, water marked, 20-lb, 16-carton lots, cwt.....	25.20	25.20	25.20	0
Chipboard, del. N.Y., carlots, ton.....	100.00	100.00	100.00	0
Wrapping paper, std. Kraft, basis wt. 50 lb rolls.....	9.50	9.50	9.25	+ 2.7
Gummed sealing tape, #2, 60 lb basis, 600 ft. bundle.....	6.60	6.60	6.30	+ 4.8

#### BUILDING MATERIALS†

Cement, Portland, bulk carlots, fob New Orleans, bbl.....	3.65	3.65	3.65	0
Cement, Portland, bulk carlots, fob N.Y., bbl.....	4.20	4.20	4.18	+ .5
Southern pine, 2x4, s4s, trucklots, fob N.Y., mftbm.....	116.00	116.00	124.00	- 6.5
Douglas fir, 2x4, s4s, carlots, fob Chicago, mftbm.....	126.00	126.00	137.00	- 8.0
Spruce, 2x4, s4s, carlots, fob Toronto, mftbm.....	85.00	80.00	88.00	- 3.4
Fir plywood, 1/4" AD, 4x8, dealer, crld, fob mill, msf.....	68.00	64.00	64.00	+ 6.3

#### TEXTILES

Burlap, 10 oz. 40", N.Y., yd.....	.150	.151	.114	+31.6
Cotton middling, 1", N.Y., lb.....	.335	.335	.341	- 1.8
Printcloth, 39", 80x80, N.Y., spot, yd.....	.175	.175	.205	-14.6
Rayon twill, 40 1/2", 92x62, N.Y., yd.....	.20	.20	.235	-14.9
Cotton drill, 1.85, 59", 68x40, N.Y., yd.....	.335	.335	.40	-16.2
Wool tops, N.Y., lb.....	1.530	1.505	1.490	+ 2.7

#### HIDES AND RUBBER

Hides, cow, light native, packers, Chicago, lb.....	.180	.180	.225	-20.0
Rubber, #1 std ribbed smoked sheets, N.Y., lb.....	.300	.304	.401	-25.2

† Source: Petroleum Week    † Source: Engineering News-Record

#### This Week's

## Price Perspective

APRIL 10-16

**SIGNS OF THE TIMES**—Improving business is gradually shifting supplier emphasis from smaller to larger orders.

Two recent examples—aluminum and copper water tubing—underscore the trend.

• Producers of aluminum would hardly have antagonized small buyers (with a 4¢/lb. rise in extras on orders under 500 lb.) unless they were pretty certain of a general pickup in buying. **Incidentally, some people are already interpreting this aluminum move as a straw in the wind—pointing to a general price rise in August.**

• In tubing, the situation is seemingly different. Prices are being cut instead of raised. But the fact that the declines (8% in the past two months) are on orders of 5,000 ft. or more again helps the big buyer.

Contrast all this to the situation prevailing in late 1960. With order books almost bare, most major suppliers were actively wooing the smaller customers as a matter of survival.

At that time, quantity discounts were granted by steel service centers for combinations of small orders on certain steel products, a policy that had been abandoned during the previous boom. This same kind of "combination" deal was also offered at that time by a number of chemical producers.

But this supplier trend toward better deals on small quantities has just about run its course. If history is any indicator, the current aluminum and copper water tube moves should be the forerunner of a general trend toward larger and larger differentials.

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**A PARADOX**—How can copper and copper alloy product prices move both up and down at the same time?

That's a question a lot of buyers are asking in the wake of recent moves which saw plumbing fixture tags rise and copper water tubing prices fall.

The import-export trend provides the explanation as to what's really happening in this area.

On the up side, the recent rise in brass ingot and plumbing fixtures tags is a direct result of heavy Japanese buying of U.S. brass scrap. These purchases have driven up the scrap price some 10%, forcing pass-throughs all the way to finished product lines.

On the down side, the recent cuts in copper water tubing can be directly traced to foreign competition. Thus, it's no coincidence that the new lower domestic prices are close to foreign quotes.

And, judging from current imports, the move is successful. Incoming shipments from Canada (our major competitor) have just about dried up. And there is a lot less buying from West European countries such as England, France, and Germany.

**Curiously enough, producers are disturbed about both the copper water tube and brass product moves.** In the case of the former, the new low price just about wipes out the profit from this line. And in the case of brass products, the huge scrap exports have made for a brass ingot scarcity as well as higher manufacturing costs.

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**REPERCUSSIONS**—Hikes in two relatively small-volume metals (antimony and cadmium) could spread to key user industries.

Thus, the antimony rise of 3 1/2¢/lb. (the first change in over three years) could affect manufacturing costs of automotive battery plate, bearings, and plastics. Demand from the latter industry (in the form of antimony oxide) has been particularly strong of late—and some observers think it's a major factor behind the rise in the metal.

**The cadmium boost of 10¢/lb. will probably spread to the whole line of cadmium salts and pigments.** The rise is attributed to a combination of factors: lower stocks, better plating demand, and an export step-up.

# Scrap Prices Rising; PW to Keep Weekly Tally

**New York**—Starting with this issue, PURCHASING WEEK will carry a weekly tabulation of up-to-the-minute scrap prices (see box at right). It's designed to supplement "This Week's Commodity Prices" on the opposite page, presenting in one handy spot all basic market information on scrap.

This new listing can be used as a handy reference for:

• **Both buying and selling scrap**—Comparison of current, week-ago, and year-ago quotations can give helpful hints on market tone. While all specific grades aren't listed, the items chosen are the pace-setters—ones that set the trends for movements in most metal and non-metal scrap areas.

• **Buying primary materials**—Scrap is an important input material for many primary products such as brass, copper, alu-

minum, and paper. And rises and falls in scrap quotations often have sharp repercussions on the price of user industries.

The recent boosts in brass ingot and plumbing fixtures (see page 1) can be traced directly back to a rise in scrap costs. A 10% hike in brass scrap over the past month resulted in an up-to-8% increase in brass ingot prices. This, in turn, put the pressure on ingot users, such as plumbing fixture manufacturers, who boosted tags some 5%-7%.

• **Business trends**—Scrap

quotes, in general, are particularly sensitive to small changes in demand. They tend to move up sharply at the first hint of recovery and down well in advance of a general recession.

Their performance in recent months is a perfect illustration of how they act as a "lead" indicator. Thus, since the first of the year, prices of the items included in the PURCHASING WEEK scrap mix rose 5%—indicating well in advance the business pickup that most P.A.'s are just beginning to feel.

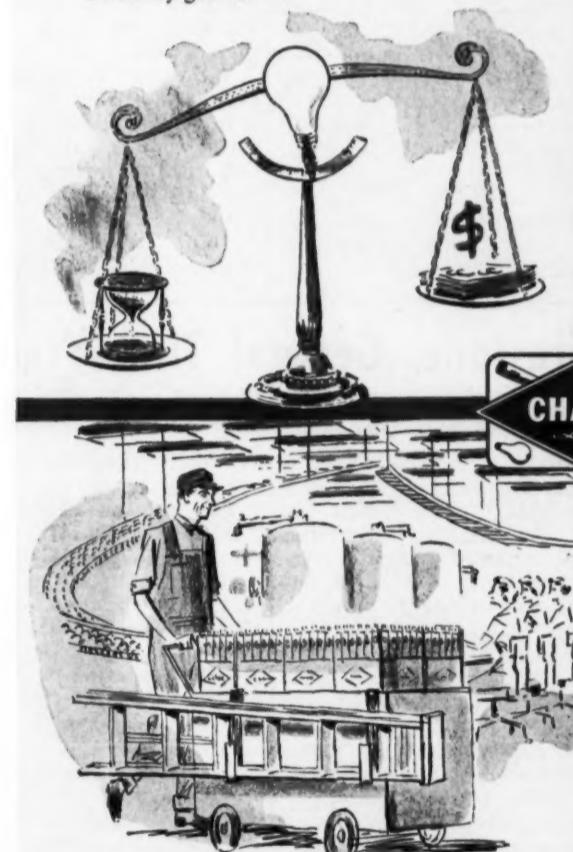
## This Week's Scrap Prices

	Apr. 10	Apr. 3	Year Ago	% Yrly Change
Steel, #1 hv, divd Pitt, ton.....	37.50	35.00	35.00	+ 7.1
Steel, #1 hv, divd Clev, ton.....	34.00	34.00	33.00	+ 3.0
Steel, #1 hv, divd Chic, ton.....	39.00	38.00	32.00	+21.9
Copper, #1 wire, dlr buy, fob NY, lb.....	.225	.230	.230	- 2.2
Copper (hv) & wire mix, dlr buy, fob NY, lb.....	.205	.210	.200	+ 2.5
Brass, light, dlr buy, fob NY, lb.....	.11	.11	.105	+ 4.8
Brass, hv yellow mix, dlr buy, fob NY, lb.....	.11	.11	.115	- 4.3
Alum (cast), mixed, dlr buy, fob NY, lb.....	.09	.09	.11	-18.2
Alum (sheet), old clean, dlr buy, fob NY, lb.....	.085	.085	.11	-22.7
Zinc, old, dlr buy, fob NY, lb.....	.025	.025	.03	-16.7
Lead, soft or hard, dlr buy, fob NY, LB.....	.07	.07	.085	-17.6
Rubber, mix auto tires, divd Akron, ton.....	11.00	11.00	12.50	-12.0
Rubber, synth butyl tubes, East, divd ton.....	5.75	5.75	7.50	-23.3
Paper, old corrug box, dlr, Chic, ton.....	16.00	14.00	18.00	-11.1
Paper, #1 mixed, dlr, NY, ton.....	1.00	1.00	6.00	-83.3
Polyethylene, clear, dlr, NY, LB.....	.065	.065	.11	-40.9

# Facts of Light!

## YOU CAN'T GET BOTH HIGH EFFICIENCY AND LONG LIFE IN INCANDESCENT LAMPS

General service incandescent lamps are designed so that the ratio between life and efficiency (light output) results in lowest overall lighting cost for the average installation. When efficiency is increased, lamp life is shortened. When lamp life is extended, efficiency goes down.



## GROUP RELAMPING SAVES 17 MINUTES PER LAMP IN MAINTENANCE TIME

Maintenance studies show that it takes an average of 20 minutes to replace a single burned out lamp as against 3 minutes when lamps are group replaced.

## SOME PLANT AREAS "STEAL" LIGHT

Poor reflective surfaces drastically reduce the useful light you get from a lighting system. For instance, brick walls reflect only about 13% light. Smooth walls painted white, on the other hand, reflect 80-85% light.



**CHAMPION**  
Lamps

Your Best Buy in Lamps



## SIXTY YEARS' EXPERIENCE GOES INTO CHAMPION LAMPS

Champion has been manufacturing incandescent lamps since 1900 and fluorescent lamps since their advent in 1938. Over 3,000 types and sizes are now available.

**CHAMPION LAMP WORKS, Lynn, Massachusetts**

CHAMPION INCANDESCENT-FLUORESCENT

## Tariff Ruling Clears Way For Higher Cement Levy

**Washington**—The U. S. Tariff Commission has found that some smaller U. S. cement companies in New England have been unfairly injured by low-price imports of Swedish Portland cement.

U. S. plants have lost "a substantial volume of sales" in Rhode Island, eastern Massachusetts, and eastern Connecticut because of sales by Swedish exporters at less than fair value, the commission decided.

The Tariff Commission said the Swedish cement was being sold at lower prices which U. S. companies selling in the area have been forced to meet. Imports of white nonstaining Portland cement were excluded from the decision.

The Tariff Commission action, constituting a finding under the antidumping act, clears the way for the Treasury Dept. to add special violation duties to the Swedish imports when they are cleared by U. S. Customs Bureau authorities.

Industry sources expect the added tariffs to restore a price differential between U. S. cement sold in the area and the Swedish imports. Recent price levels in the area for bulk rail shipments have been about \$4.44/bbl. for imported cement and about \$4.52 for domestic cement.

## Brass Discount Raised

**New York**—Major U. S. brass mills added another 3% discount to distributor prices on orders of 5,000 feet and/or pounds or more of copper water tube and pipe, threadless pipe, and drainage and vent tubing. The discount was added to a 5% discount made early in March.

The move was primarily aimed at closing the gap between U. S. and foreign prices to distributors. But, as one brass mill spokesman pointed out, "The discounts were cropping up anyway—this merely makes them official."

Producers were sharply divided on the wisdom of the move. As the sales manager of one East Coast brass mill said, "This erases any profit in copper water tubing."

# Washington Perspective

APRIL 10-16

Unemployment will remain high through the rest of the year even if business picks up as expected. That is the consensus of President Kennedy's chief economic aides. And their feeling is bolstered by the latest employment figures. Even with an above-normal 800,000 increase in employment from February to March, the unemployment rate rose from 6.8% to 6.9% over the month.

Says Seymour Wolfbein, economist for the Bureau of Labor Statistics: "Even if we get a turnaround, these figures underscore that this will not resolve the unemployment problem. We will have a serious problem for many months to come."

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This high rate of unemployment is causing a serious rift within the AFL-CIO. Craft and industrial unions are battling in AFL-CIO headquarters, in the National Labor Relations Board, in the Supreme Court, and in Congress over construction and maintenance work in factories.

Steel, auto, rubber, and other industrial unions demand continued jurisdiction over maintenance and repair work in factories through a no-contracting-out contract with employers. The building trades unions claim this is an encroachment on their rightful craft work.

A new NLRB decision supports the craft unions. But the issue is far from settled. It is before the Supreme Court in a case involving General Electric. And in Congress, Walter Reuther's Industrial Union Dept. has withdrawn its support of a building trades drive for legislation to permit picketing of construction projects, killing its chances.

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A preliminary round in next year's reciprocal trade battle will be fought this summer before a House labor subcommittee. The group, headed by Rep. John H. Dent (D-Pa.), plans an investigation of the impact of imports on U.S. production and employment. No dates are set yet.

The subcommittee, top-heavy with long-time critics of import competition with U.S. industries, expects to get nowhere this year. But it hopes to pile up ammunition for the major fight next year when the Reciprocal Trade Agreements Act comes up for renewal. Congress has been growing increasingly protectionist-minded in recent years.

The Dent subcommittee plans to start its inquiry with a sharp look at copper, lead, zinc, and oil imports. But it undoubtedly will broaden its investigation to cover a wide variety of raw materials and finished products.

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Meanwhile President Kennedy has eliminated special import fees on peanut oil, flaxseed, and linseed oil, following a determination that imports of the commodities do not threaten to hinder domestic price support operations.

The products have been imported under special 50% ad valorem fees since 1953. The U.S. Tariff Commission recommended elimination of the fee on peanut oil, but reductions on flaxseed and linseed oil fees only to 15%. President Kennedy, however, eliminated the fees on all three products.

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Small Business Administrator John E. Horne has taken the first major step in an Administration attempt to channel more funds into small companies in depressed areas. He cut the interest rate on direct loans to such firms from the current 5 1/2% to 4%. Companies in some 285 labor surplus areas are eligible.

SBA can lend a firm up to \$350,000 for as much as 10 years. The agency has about \$99-million in lendable funds now, but Horne plans to ask Congress for another \$100-million or so.

## Weekly Production Records

	Latest Week	Week Ago	Year Ago
Steel ingot, thous tons	1,632	1,611	2,527
Autos, units	107,519	94,827*	155,635
Trucks, units	22,495	23,089*	30,944
Crude runs, thous bbl, daily aver	7,855	7,897	7,916
Distillate fuel oil, thous bbl	11,995	11,831	13,091
Residual fuel oil, thous bbl	6,195	6,639	6,811
Gasoline, thous bbl	28,708	28,458	27,968
Petroleum refineries operating rate, %	79.2	79.6	81.1
Container board, tons	162,607	158,349	150,716
Boxboard, tons	99,229	97,737	100,947
Paper operating rate, %	90.7	91.2*	99.0
Lumber, thous of board ft	217,054	216,811	263,247
Bituminous coal, daily aver thous tons	1,104	1,083*	1,485
Electric power, million kilowatt hours	14,163	14,291	13,542
Eng const awards, mil \$ Eng News-Rec	440.0	405.0	356.2

\* Revised

## Lower Rail Rates Sought on Lumber, Scrap Metal

Washington — The Interstate Commerce Commission has been asked to approve freight rate reductions on lumber and scrap metal. Both proposals are drawing strong opposition.

Transcontinental railroads are seeking a 7¢/cwt. reduction in carload rates on lumber moving out of the Northwest to the East and South. The ICC has suspended the reduction, which was to have gone into effect April 1, pending an investigation.

Meanwhile, southern lumber interests have asked the commission to conduct an inquiry into the broader question of the reasonableness of all lumber rates. The purpose would be to determine whether the rates are properly related to costs.

### Deadline for Comments

The commission has not yet acted on this request. It is now receiving replies to the petition of the southern group. The deadline for comments is April 14.

The battle over lumber rates finds northwestern producers and railroads at odds with eastern and southern producers and their carriers. The southerners, in particular, insist that they have been put at a disadvantage in competing with producers in the Northwest.

They argue that transcontinental railroads, at the insistence of northwestern producers, have not taken full advantage of general freight increases approved by ICC as far as lumber is concerned. This, they say, has caused a disparity which will be aggravated if the ICC approves the proposed reduction.

### Scrap Iron Rates

In the dispute over scrap iron rates, an ICC examiner has concluded hearings and is now con-

sidering his recommendation. This battle finds the scrap iron industry seeking rate cuts over the objections of 49 eastern railroads and five steel producers—Republic, Bethlehem, Pittsburgh, Jones & Laughlin, and Weirton.

The Scrap Iron and Steel Institute charges that the railroad rates are pricing scrap metals out of competition with iron ore and steel.

It has requested the commission to lower rates on scrap loaded in rail cars up to 80,000 pounds to 70% of the prevailing rates on new steel and on scrap loaded at 100,000 lb. per car to 50%.

In addition the institute asks that the rates be no greater than 150% of rates on iron ore and no more than 70% of those on pig iron.

## Major Tire Makers Refuse to Follow U.S. Rubber's Price Boost on Tires

Akron—Other major manufacturers have announced they will not follow U.S. Rubber's lead in boosting tire prices. Increases posted by U.S. Rubber on March 14 of 5% on passenger tires and 2 1/2% on truck tires went into effect April 1.

Other tire makers saw little prospect for an immediate change in their pricing plans. Said a spokesman for one: "We're either going to have to wait until business gets better or until wage costs are forced higher."

Goodyear chairman E. J. Thomas summed up the prevailing industry view. He said he did not regard the present level of tire prices as "satisfactory," but that business conditions do not favor an increase at the present time.

There were strong indications that U.S. Rubber was prepared to beat a retreat from its position. A company spokesman said, "We will have to remain competitive. We certainly cannot 'go it alone' on this increase."

This, added to president George R. Villa's remark a week

after the increase was put into effect that it would be rescinded if other companies did not go along (see PURCHASING WEEK, March 27, 1961, p 34), led some observers to predict that the increases would not stick.

Pressure from labor for higher wages and increased fringe benefits will play a key role in the industry's pricing plans. Right now, two rubber companies, Goodyear and Firestone, are negotiating with the United Rubber Workers on master contracts (centering on working conditions and benefits) which expire April 15. Other companies face similar negotiations as their contracts run out in the next two months.

On top of this, wage contracts come up for negotiation this summer. The union is expected to ask for a general pay raise on top of the 10¢/hr. hike received last September.

"If the union gets what it wants, we will more than likely have to increase prices," a major tire manufacturer said.

A strong barrier against price increases is the increasing pressure on competition in tire retailing from department and chain stores. This has been forcing prices down, most recently last November when Firestone led other companies in cuts of \$1 to \$4 in advertised prices.

## Business Advisory Group Reorganized by Hodges

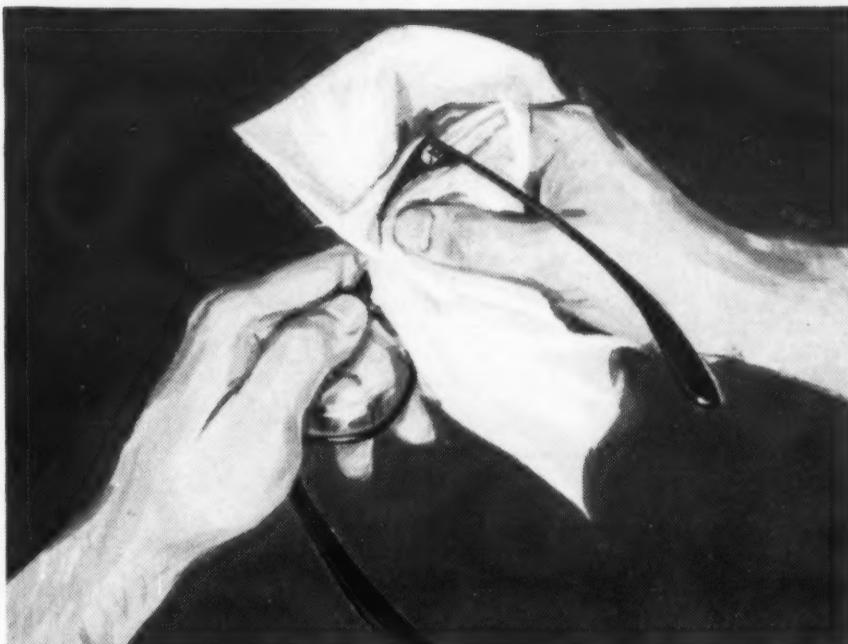
Washington—The Commerce Dept. has tightened its grip on the Business Advisory Council, a group of about 175 top U.S. industry leaders which acts as an advisory body to the department.

In broad organizational changes, Secy. of Commerce Luther H. Hodges has appointed himself general chairman of BAC. Hodges will be able to overrule any decisions by Roger Blough, chairman of U.S. Steel Corp., who has been elected new industry chairman of the group. Blough succeeds Ralph J. Cordiner, chairman of General Electric Co.

The top-level advisory body also will be expanded to include representatives of small business. Hodges, rather than BAC members, will make the selections of all new members in the future. The Commerce secretary, unlike his predecessors, also will set agendas and meeting times.

Another major change will allow newsmen to hear government officials address BAC meetings. Previously, all council meetings were closed.

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# Years of Fierce Infighting Seen for Carriers

College Station, Tex.—The transportation industry is in for a long period of fierce and expensive competition. That was the consensus of experts at the Third Transportation Conference sponsored by the Texas Transportation Institute at A&M College.

Leland D. Smith, industrial traffic expert for the Stauffer Chemical Co., Houston, who led the day's discussion, declared that in the next 10 years the nation's railroads would have to provide a million new freight cars—at a cost of some \$10-billion—

if they are to maintain their position in transportation.

"No form of transportation can say, or would even dare to say, we were here first and need not worry," he said.

"Transportation research is not static," Smith said. He pointed out that the British expect to put into commercial use this summer the first of their air-cushion vehicles. These craft, which ride on a cushion of air, can navigate over land or water at speeds in excess of 40 miles per hour. Models now under de-

velopment are expected to hit more than twice that speed. Smith said the first commercial air vehicle will go into use this summer, hauling bananas down-river from a plantation in Nigeria to the port of Tiko.

Maj. Gen. John P. Doyle (USAF Ret.), who headed the recent study on national transportation policy for the U. S. Senate, called for a policy aimed at protecting national rather than "parochial" interests and reiterated his stand for a single transportation agency.

## N&W and C&O Seeking Assets Of Coal-Hauling Barge Line

Roanoke, Va.—Norfolk & Western Railway and the Chesapeake & Ohio have contracted to buy assets of the Island Creek Fuel & Transportation Co., coal-hauling barge line which operates on the Ohio River.

Assets of the barge company include river terminals at Kenova and Huntington, W. Va. The N&W crosses the Ohio River at Kenova, and the C&O serves Huntington. Operation of the

barge line would enable the railroads to make total movement of coal from the mines to the Pittsburgh area rather than short-haul deliveries for transshipment on the Ohio River.

### Second Effort

This proposal marks the second effort by the railroad industry to get into the barge business. An ICC examiner recently recommended rejection of a joint bid by the Illinois Central and Southern Pacific to acquire John I. Hay Co., a Mississippi River barge line.

Examiner Hyman J. Blond told the commission that the Hay line acquisition would give the water carrier greater financial and traffic-soliciting resources than its competitors, and that all major barge lines would be forced to sell out to railroads if the proposal were approved.

### No Decision Yet

So far, the ICC has not ruled in the Hay case.

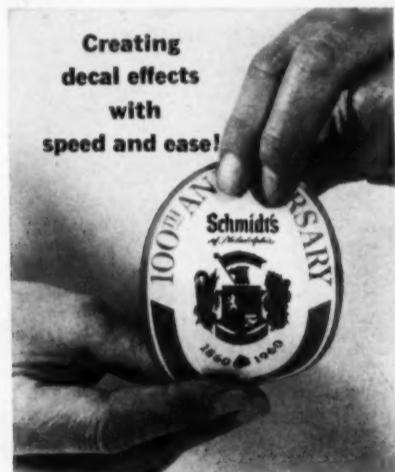
The N&W and C&O say ICC disapproval of the Hay line acquisition would not necessarily affect the Island Creek proposal, because the Island Creek line hauls only coal, whereas the Hay line is a common carrier barge line hauling various commodities. The roads will pay the Island Creek Coal Co. \$8-million (\$4-million each) for properties of its wholly owned barge line.

## More effective labeling and tagging!

Time was when most labels and tags were considered routine printing jobs. Those days are gone forever . . . The growth of self-service consumer buying has made top management realize the importance of tags and labels as selling tools at the point-of-sale . . . and increased the responsibility of the men who buy them.

Today, tag and label buyers look beyond first cost to the job to be done. They look for tagging and labeling techniques that increase point-of-sale effectiveness, meet difficult specifications or reduce over-all costs.

Naturally, many of these value-minded buyers look first to Dennison . . . originator of more new labeling and tagging techniques than any other single source. A few examples of problem-solving teamwork between buyers and Dennison are briefly reviewed here.



Beer and safety razor blades have little in common. Yet, both have profited from a labeling technique that speeds and simplifies decoration.

Schmidt's of Philadelphia celebrated its 100th anniversary as a brewer in 1960 . . . with a Dennison split-top pressure-sensitive label playing a major role. Printed in three colors on transparent acetate and gummed with permanent Dennison PRES-a-ply® adhesive, it simulated a decal in appearance and clinging power. But, how different in application ease. No soaking in water. No sliding into position. Just a zip of its paper backing . . . a pat of the fingers . . . and there it was on an automobile or truck window. All of Schmidt's employees and distributors participated.

Gillette used the same labeling technique to redecorate thousands of counter cases when the Super Blue Blade hit the market with history-making impact in 1960. This Dennison PRES-a-ply label was printed in red, white and blue on transparent acetate to match the "price" spots already silk-screened on the glass cover of Gillette's full-line display case. Neatly and securely applied in seconds by finger-tip pressure, it saved time and bother for Gillette salesmen as they made their promotion rounds.

Other users of this PRES-a-ply labeling technique find it the quickest, easiest way to add new prices, premium offers and

other promotional or variable information to existing packages or displays. High-speed Dennison PRES-a-ply label dispensers keep application costs amazingly low.

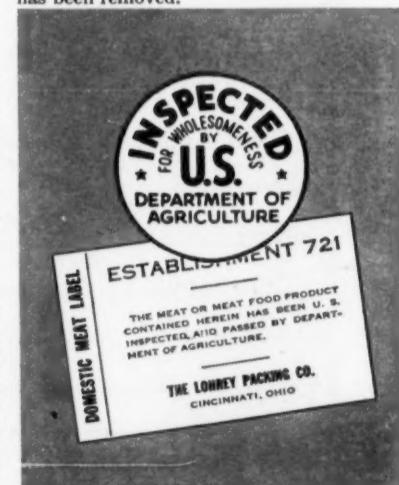
### Giving "Easy on" labels extra "Stay on" power!

Few users of labels must meet such demanding specifications as meat processors. For the US Department of Agriculture, a strict task master, insists on meat products being permanently labeled according to its regulations for consumer protection.

**Cryovac film packaging of poultry**, for example, calls for the application of a USDA inspection label after the film has been shrunk tightly around the bird in boiling water. The labeled package is then subjected to hours in a deep freeze. Yet, the label must remain 100% tamper-proof. For a Tennessee processor, Dennison supplied a pressure-sensitive label with such permanent adhesion that it cannot be removed without detection. To the customer's delight, the USDA inspector gave his complete approval not only for use on Cryovac film but also on waxed paper overwraps and waxed board boxes.

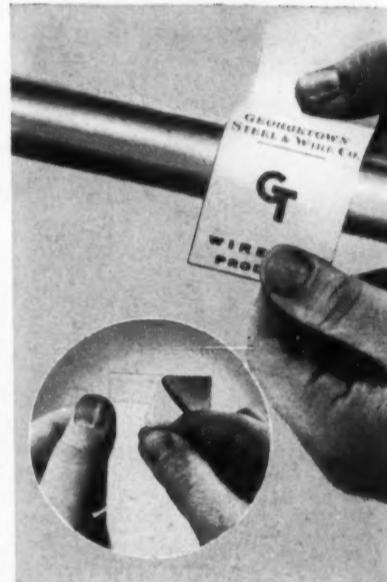
**This same Dennison PRES-a-ply labeling technique** is also bringing The Lohrey Packing Co. of Cincinnati and other federally inspected meat packers the benefits of strong adhesion. USDA regulations specify the labeling of stainless steel trucks and containers for meat and meat products. Each time a truck or container is emptied, it must be thoroughly steam-cleaned before re-use. Previous labels washed off after each use and often clogged drains, causing costly plumbing bills.

Dennison solved the problem by supplying PRES-a-ply labels with an adhesive so strong that even steam cleaning could not take it off! Printed on water-proof stock with grease-proof ink and over-varnished, these labels survive 40 washings! The Lohrey Packing Co. no longer has to worry about continually reordering and applying labels to their containers. A big headache has been removed.



If you need labels that will stay on through steam cleaning, freezing or any other harsh environment — you need permanent PRES-a-ply.

### New stringless technique slashes tagging costs!



A stripe of self-sticking adhesive on the back of the tag is now replacing the traditional string or wire in many cases.

**This new tagging technique** not only reduces attaching costs but also brings the benefits of tagging to products formerly considered impossible, impractical or difficult to tag.

**With the self-sticking stripe on one end**, as on the back of the Georgetown Steel & Wire Co. tag, you have a new wrap-around technique. It is now increasing the point-of-purchase appeal of such widely varied products as tools, home appliances, luggage and furniture. Other users apply these tags directly to doors, windows, lumber, trunks, tires, windshields and toys.

**In-plant applications** of this new technique employ couponed system tags for production, piece-work and inventory control.

### NEW FACT FOLDER!

If you're responsible for getting more sales impact per dollar out of tags and labels or reducing over-all labeling and tagging costs, this free fact folder will prove invaluable to you. It describes techniques and shows samples that are now increasing sales and profits for some of America's most successful marketers. For your free copy, write directly to Dennison Mfg. Co., Dept. R291.



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## Studebaker-Packard Set To Introduce New Line Of Small Diesel Trucks

**South Bend** — Studebaker plans early introduction of two series of diesel-powered trucks, its first entries into the diesel field. One will be rated at 35,000-lb. GCW and the other 41,000-lb. GCW.

Each model will offer the 453-cu. in., in-line 4-cylinder engine made by Detroit Diesel Div. of General Motors, and the usual chassis, ranging from tractors to long-wheelbase tandems, will be available.

In establishing a diesel line, Studebaker has chosen a weight range where there is not too much competition. Neither Ford nor Dodge catalog so light a diesel, although the specialized builders, such as International Harvester, White, and GMC Truck & Coach Div., do market a few. Chevrolet makes no diesels.

The current Studebaker gasoline-powered E-40 series has a GCW rating of 35,000 lb. and sells in basic tractor form (131-in. wheel base with cab) at factory list of \$2,982. The diesel option is expected to add about \$1,000 to this tag, a figure still considerably under existing competition.

The low price might make a diesel truck in this weight category a more attractive proposition to amortize in city delivery service, or in over-the-road hauling of bulky but light commodities such as furniture and automobiles.

## Ling-Temco, Chance Vought Merger Approved After Stormy Preliminary

Dallas — Plans to merge Chance Vought Corp. and Ling-Temco Electronics, Inc., have been approved by directors of the two firms.

Stockholders will vote on the proposal in June.

The companies said the merger will improve their positions in both the electronics and aerospace fields, giving them greater capacity to compete for large prime defense contracts.

The new company, which will be named later, would have assets of over \$194-million and an order backlog of over \$300-million. Combined sales in 1960 were \$632 million.

The road to merger was a stormy one. The agreement culminates a campaign of several months by Ling-Temco president James J. Ling to acquire con-

trol of Chance Vought. Ling and his associates had acquired over 455,000 of CV's 1,190,000 outstanding shares prior to the agreement.

Terms of the directors' agreement call for equal representation on the new company's board.

However, F. O. Detweiler, recently named CV chairman, has said he will not remain with the new organization.

## Plywood Prices Rise Third Time in Three Weeks

Portland, Ore.—Sanded fir plywood prices continue to mount.

Three boosts in as many weeks have lifted tags on the key quarter inch grade to \$72 a thousand square feet—\$12 above prices prevailing in mid-March.

Even sharper rises are reported in sheathing and plywood. In sheathing, CD grade  $\frac{5}{8}$ " is up to \$104—\$19 above the level of a few weeks ago. BB grade  $\frac{5}{8}$ " plywood now goes for \$160 a thousand square feet. That's \$20 higher than mid-March levels.

Experts see these factors behind the firming trend:

- **Speculative buying**—Wholesalers are placing larger orders in preparation for the expected increase in building demand during the last six months of 1961.

- **Improved current demand**—According to one West Coast expert, some wholesalers have been caught short, having sold more plywood for delivery in the future than they had made mill commitments for.

- **Higher labor costs**—Timber

and sawmill workers in the Douglas Fir belt of Oregon, Washington, and California have recently made wage demands which would cost employers up to 23¢/hour.

The Timber Operators Council, representing a majority of lumber and wood products manufacturers in the area, is already preparing a rebuttal. The council has stated that the industry, faced with an adverse market, cannot afford the increased production costs included in the union proposals.

## Truck, Rail Interests Join Forces to Set Up New Piggyback System

Chicago—Truck and rail interests have combined forces in a new piggyback operation, said to be the first of its type.

The project is centered around a new firm, Terminal Operating Facility Co., Inc., which will build and operate two piggyback loading and unloading terminals on property owned by Erie-Lackawanna Railroad in Chicago and Jersey City, N. J.

Rail services will be provided for the participating motor carriers by Erie-Lackawanna under a long-term agreement. A railroad spokesman said joint routing arrangements have been worked out for the mutual benefit of the motor carriers. He said operations will be of the so-called "Plan I" type (trailer vans hauled on railroad flatcars for a fixed fee).

Companies backing TOFC are: Cooper-Jarrett, Inc., Chicago; Denver-Chicago Trucking Co., Denver; Eastern Express, Inc., Terre Haute, Ind.; Midwest Emery Freight System, Inc., Chicago; Interstate System, Grand Rapids, Mich.; Spector Freight System, Inc., Chicago, and Rail-Trailer Co., Chicago.

## Calif. Buy-American Law Permits Foreign Leasing

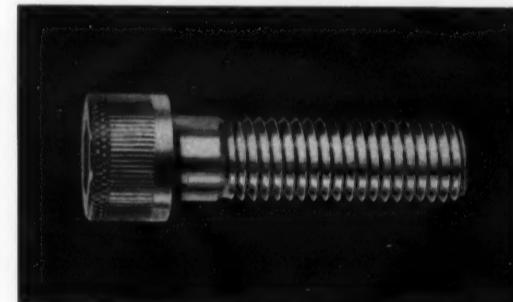
Sacramento, Calif.—California's Atty. Gen. Stanley Mosk has ruled that a chartered city in California may lease foreign-made motor coaches.

California's Buy-American Act prohibits the purchase, but does not say anything about leasing.

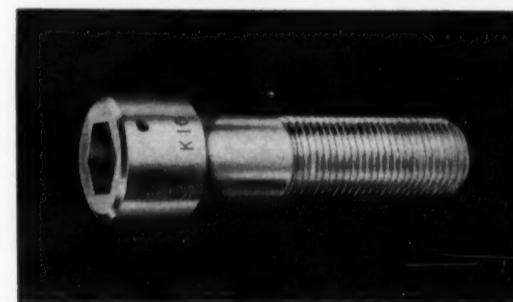
Contracts for purchase are permitted "only to persons who agree to use or supply only such unmanufactured materials as have been produced in the U. S., and only such manufactured materials as have been manufactured in the U. S." The expression "materials" includes "articles and supplies." These requirements do not apply to leases.



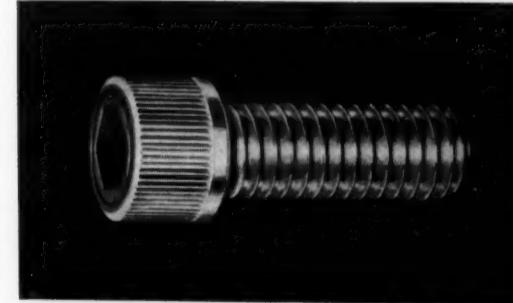
UNBRAKO pHd Hi-Life, today's only all-new socket screw. Larger head, new thread root form give up to  $2\frac{1}{2}$  times as much holding power, twice the fatigue strength of ordinary screws.



Stainless UNBRAKO socket head cap screws meet requirements for corrosion-resistant fastening through a temperature range of  $-300^{\circ}$  to  $800^{\circ}$ F.



K16 socket heads offer 300% longer fatigue life than regular socket screws, replace costly specials in an increasing number of applications demanding extra-high fatigue capacity.



UNBRAKO KS 812 stainless socket screws provide a certified 125,000 psi minimum tensile strength... performance formerly available only in specials. Identified by groove around socket.

## Why UNBRAKO offers more for your socket screw dollar

Greater fastening strength per screw... plus the broadest selection of standard socket head cap screws in the industry. That's the UNBRAKO story in a nutshell. It means more value for your fastening dollar and less involvement with specials—always a purchasing headache. Here then is what SPS—and only SPS—now offers you in socket head caps:

### UNBRAKO pHd<sup>®</sup> with Hi-Life Thread

The advanced fastener for the '60s. New pHd head with increased bearing area gives up to  $2\frac{1}{2}$  times as much holding power. Radiused root of new SPS Hi-Life thread form drastically reduces stress concentrations, doubles fatigue life. Forged heads, rolled threads add further strength and fatigue resistance. Available with Nylok<sup>†</sup> self-locking feature if desired. Sizes #0 to  $1\frac{1}{2}$  in. in alloy steel... full range of plating and other finishes.

### Stainless UNBRAKO Socket Screws

Available in a variety of corrosion-resistant alloys... and with Nylok. Silver plating and/or molybdenum disulfide can be added as a lubricant to prevent galling and reduce the thread friction sometimes encountered at elevated temperatures. Sizes #0 to  $\frac{5}{8}$  in. with forged pHd head and fully formed Hi-Life thread.

### NEW HIGH-PERFORMANCE UNBRAKO K SERIES

UNBRAKO K16 tension fasteners replace specials in high fatigue service. They give twice the fatigue life of regular UNBRAKOS; four times that of ordinary socket heads—in a standard fastener, reasonably priced. Sizes #8 to  $1\frac{1}{2}$  in. in 8740 A.Q. steel. pHd head, Hi-Life thread.

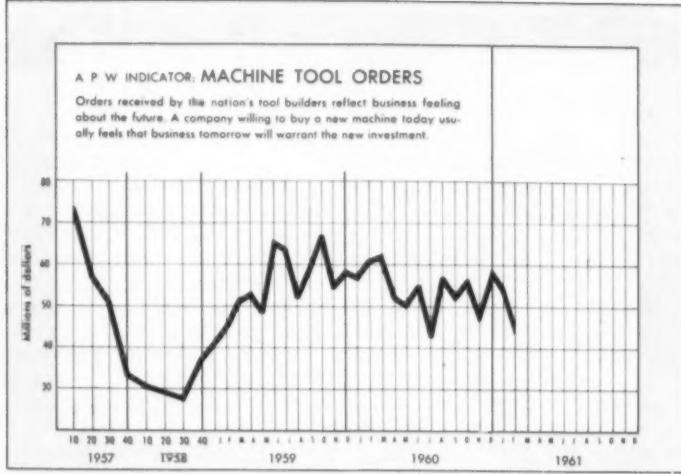
UNBRAKO KS 812: A stainless socket head cap offering a guaranteed tensile strength of 125,000 psi minimum. Yet this precision forged, burr-free fastener is a standard, available in quantity off the shelf. Has pHd head for greater holding power; Hi-Life thread for increased fatigue resistance. Sizes #8 to  $\frac{5}{8}$  in.

All UNBRAKO standard socket head cap screws are available from stock through your industrial distributor. See him for further information or write Standard Pressed Steel Co. INDUSTRIAL FASTENER Division, SPS, JENKINTOWN 48, PENNSYLVANIA.

\*proper Head design (1960 Series) †T.M. Reg. U.S. Pat. Off., The Nylok Corporation

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**SLOW PACE CONTINUES:** Sharp drop in orders for forming tools more than offset an increase in the cutting varieties. One optimistic sign: Builders report a March pickup in both orders and inquiries.

## Brass Users Beginning to Pass On Ingot Price Hikes Made Last Month

(Continued from page 1)

said Richard A. Peterman, general manager of Sterling Faucet Co., a plumbing industry price leader. "For specific items the change will vary with the cast brass content. This latest boost in our raw material costs is the straw that broke the camel's back."

The latest hike (March 29) in brass ingot tags—1¢/lb. for the 85-5-5-5 group and 3/4¢/lb.

for all other grades—brought the over-all rise since March 14 to 2 1/4¢/lb. for the yellow group, 2¢/lb. for the 85-5-5-5's, and 1 3/4¢/lb. for 88-10-2 and 80-10-10 ingots.

This price climb has followed an over-all 10% boost in brass scrap quotes sparked by heavy Japanese buying in the American market.

Higher ingot costs are cropping up chiefly in plumbing goods prices at present, but informed industry people feel that other users are going to get into the act if there are more ingot price hikes.

### Limit for Brass Scrap Hikes

"Scrap can go up another 1 1/2¢/lb. to 2¢/lb.," a large East Coast smelter told PURCHASING WEEK, "and, if it does, so will ingot."

That would be the limit for brass scrap price boosts. After that, smelters say, it would pay them to alloy selected grades of copper scrap with tin, lead, and zinc.

"Provided," commented an eastern ingot maker, "the copper price structure remains pegged to the 29¢/lb. for refined. Right now it looks like it will."

### Two Factors

Whether brass scrap and ingot prices will go higher depends on two factors:

#### • Japanese scrap buying plans.

The cost-price spiral for brass ingot will continue if the Japanese keep on buying American brass scrap in volume.

"The Japanese are after all the scrap they can get," observed one smelter. "They've even been bypassing scrap dealers and going directly to the companies that generate the material."

"They can go higher for brass scrap than we can before switching to copper," commented a metals analyst. "The Japanese domestic copper price is about 34 1/2¢/lb. for refined, and they have a 5% import duty on copper scrap."

#### • Stepped-up U. S. demand for ingot.

Another reason brass scrap is scarce is because of the recession slowdown in scrap generation. A sharp pickup in domestic demand for brass and bronze ingot would aggravate this tight supply situation and would act just like heavy Japanese orders to send up brass scrap tags.

In the words of one of the nation's biggest ingot makers, "Demand is improving and some smelters are getting backlog where none existed before. With scrap as scarce as it is, a surge in demand now would put us in real trouble."

Increasing scrap costs have cut down on price discounting in the 85-5-5-5 and yellow brass ingots which use scrap grades that have been most sought after by the Japanese.

But for the 88-10-2 and 80-10-10 groups, ingot makers are now reporting heavier competitive price discounting from the new levels. These scrap grades have been under less export demand pressure.

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## Automation, Pay Issues to Be Tested In Forthcoming Contract Negotiations

Washington — Two big bargaining issues—automation and national contracts—are up for a major test in this month's labor-management negotiations.

The key bargaining talks to watch involve the giant Teamsters union in New England and the United Rubber Workers, headquartered in Akron. Both are seeking to break new ground, and if they succeed, other unions will follow.

In the Teamsters' case, union president James R. Hoffa is leading negotiations with New England truck fleets. Hoffa's goal: to write contracts that conform, in wages and length, with those the Teamsters already have negotiated in New York, New Jersey, and the central states. Hoffa's stated aim is one nationwide agreement to cover the network of truck transportation from coast to coast.

The other key negotiations involve a series of demands by the United Rubber Workers from the major rubber producers. All are aimed at one issue: automation. Encompassed in the union demands are a dozen goals, including the shorter work week, earlier retirement, severance pay, job training for workers replaced by automation, higher supplementary unemployment benefits, and

### Texas Gas Producers Ask FPG for Revision Of Indefinite Pricing

Dallas—Texas Independent Producers & Royalty Owners Assn. has asked Federal Power Commission to reconsider a recent decision barring price changes resulting from indefinite pricing clauses in natural gas contracts.

FPC announced beginning April 3 it could not allow increases resulting from indefinite pricing clauses. TIPRO looks on this as "redundant, punitive, and regressive" action.

"The commission has ample procedural opportunity to review and prevent unreasonable prices which might result from indefinite pricing clauses," TIPRO's president, John G. Hurd, said. "The only purpose to be served by eliminating such clauses would be to harshly penalize the small producers, without any substantial attendant gain for the nation's consumer."

### U.S. Steel Streamlines Marketing Setup in West

Denver — U. S. Steel has streamlined its marketing operations in Colorado and nearby states by combining the sales offices here of two of its divisions—American Steel and Wire, and Columbia-Geneva Steel.

Under the new setup, American Steel and Wire products will be sold in the Denver sales district by Columbia-Geneva salesmen. The district includes the states of Colorado, Wyoming, Montana, New Mexico, the western portions of South Dakota and Nebraska, and El Paso, Tex.

Columbia-Geneva will still operate regional sales offices in Great Falls, Mont.; Casper, Wyo.; and Albuquerque, N. M.

a general company-paid automation fund.

In those industries hurting economically, however, bargaining is still tough. The Textile Workers Union, for instance, has a scheduled wage reopeners for this month. But, on the advice of its international officers, the union's local at Berkshire Hathaway is foregoing a demand for a wage increase. They received a 5% pay boost from the industry a year ago.

### Union Contract Calendar for April

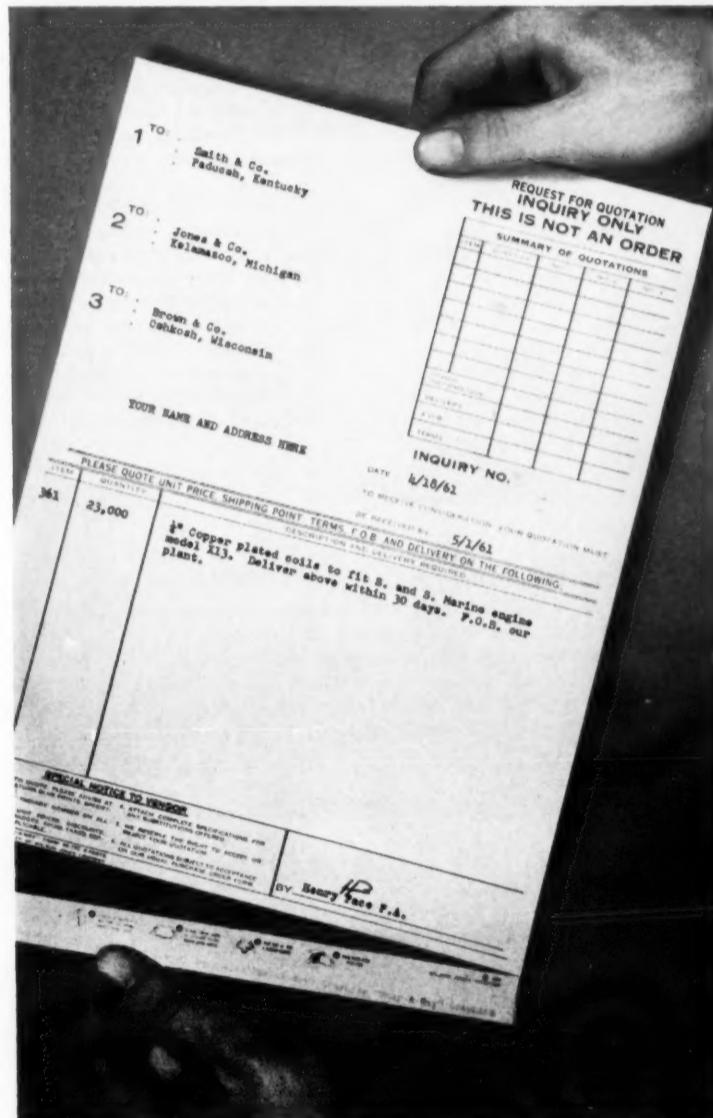
Industry	Employer	Union	Contract Expires	Wage Increases
Rubber	Firestone Goodyear	Rubber	4/61	
Glass	Owens- Illinois	Bottle Glass	3/62	Automatic 3% increase 4/61
Printing	Chicago Lithographers	Lithographers	4/61	
Textiles	Berkshire Hathaway	Textile	4/62	Wage reopening 4/61
Food	Associated Milk Dealers	Teamsters	4/61	
Trucking	New England Freight	Teamsters	4/61	

### TVA Cites Coal Policy

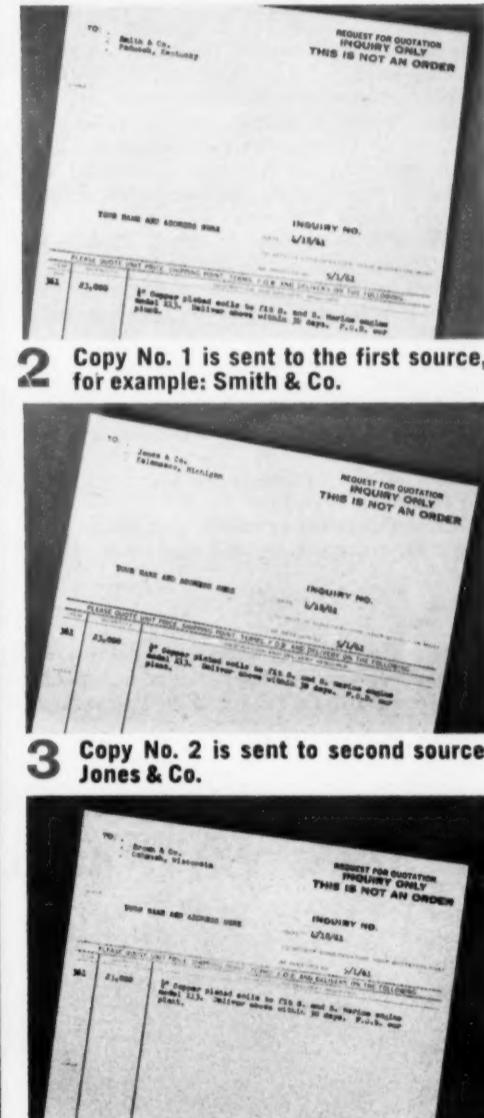
Chattanooga, Tenn. — The Tennessee Valley Authority will not limit its coal purchases to depressed areas if it can obtain lower-priced fuel elsewhere, a TVA official told the 15th annual meeting of the Tennessee Valley Public Power Assn. here.

Replying to critics who maintain that the TVA should increase its coal purchases in southeastern Tennessee, G. O. Wessenauer, TVA power manager, said the unemployment problem would not be solved by having TVA adopt a policy that would be uneconomic both for it and the mining industry.

## How Wilson Jones Stock "Snap-A-Way" Request For Quotation Form Saves You Time And Money



1 Buyer fills in the original with names of all 3 sources invited to bid. Note space for recapping all bids received.



2 Copy No. 1 is sent to the first source, for example: Smith & Co.

3 Copy No. 2 is sent to second source: Jones & Co.

4 Copy No. 3 is sent to the third source: Brown & Co.

**ASK FOR 3 BIDS WITH 1 TYPING.** This new 4-part **GrayLine** "Snap-a-Way" stock form can be used as is or imprinted with your own company name. Each source asked to quote sees only his name and buyer's specifications on his copy, while all 3 names appear on original copy kept by purchaser. Ask your office supply dealer for Wilson Jones form 44-152 or write for free sample on your letterhead.



**WILSON JONES**

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## P/W MANAGEMENT MEMOS

A collection of timely tips, quotations, and inside slants on management and industrial developments, along with a run-down of events and trends of use to the purchasing agent.

### Prescription for Dictators

Businessmen in their haste to get through the day's dictating chores often overlook the fact that clarity and brevity are the essence of good expression. As a result, their letters and memos sometimes suffer from some of the worst faults of modern communication—fuzziness arising from faulty thinking, infelicities and ineptitudes in phrasing, sloppiness in organization as a whole.

To make executives more conscious of bad communication, Soundscriber Corp. has prepared a training manual, called "Creative Communications," which includes the following rules for acquiring good habits of dictation:

- Read carefully the communication to be answered.
- Have clearly in mind the purpose of the communication you are about to dictate.
- Make a mental or pencil outline of the points to be covered.
- In making your outline, think only in terms of ideas—not words.
- Arrange these ideas in logical order.
- Lead off your dictation with the point of contact nearest to the reader's interest—if it's known. Thus, if you're going to grant a request, say so immediately; don't waste time in needless "build-ups."
- Write with the reader in mind. Picture yourself as talking to him so that you can be your natural self on paper. Don't be artificial or stilted, but show the proper degree of courtesy without being stiff.
- Finish one thought before passing on to the next.
- Use short sentences and short paragraphs and simple words and expressions which the reader will readily understand.
- Have all the necessary information at hand before you begin to dictate.
- Think of dictating as talking on paper.
- Post these suggestions and read them often.

### Judgment Day

Throw out all the hard-and-fast rules for sizing up an employee's job performance and, instead, try to develop yardsticks "tailored to the individual situation."

That's the advice given by Herbert DeLisser, formerly of the Health, Education and Welfare Department, to managers and supervisors who have to sit in judgment regularly on their underlings. Writing in *Personnel Administration*, DeLisser warns of the danger of setting up rigid performance standards and applying them indiscriminately, in such a way that they become "ends in themselves instead of merely means to an end."

As a first step in the opposite direction, DeLisser proposes that managers evaluate each phase of a man's work whenever the spirit moves them, and especially when they feel some good will come out of it—and not make a sweeping judgment on a scheduled date set from on high.

### On-the-Job-Training

A unique opportunity to acquire on-the-job experience in German firms is offered U.S. businessmen and engineers by the Carl Duisberg Society for the Development of Talents in Industry.

The society, working in conjunction with leading German industrial firms, has formulated a plan under which Americans will get three months' instruction in the language and business and cultural life of the country, and from six months to two years of work experience with a German company. In return, the society is making arrangements with a number of leading American universities to provide similar instruction and placement for young Germans looking for additional professional experience abroad. For more information about the program write: The Carl Duisberg Society, Kaiser-Friedrich 41-45, Cologne, Germany.

### Short Pointer

Here's a new twist in techniques for hounding delinquent debtors: A collection agency in Brazil decks out its collectors in costumes of fiery red—from head to foot. If the delinquent survives the shock of the first call without paying up, the threat of a second visit under the eyes of disapproving neighbors usually does the trick.

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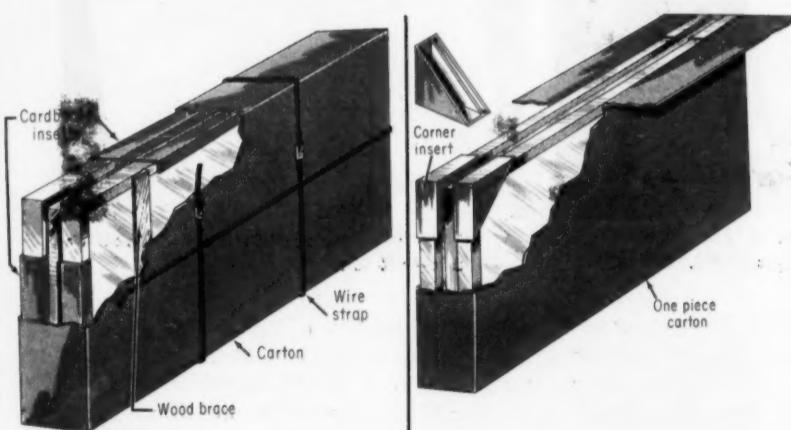
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### WHAT VALUE ANALYSIS CAN DO FOR YOU



**OLD METHOD:** Glass sliding doors were shipped in a 14-piece package consisting of corrugated inserts, reinforced with wood slats and held together by steel straps.

**NEW METHOD:** Redesigned package uses triangular pads on corners to hold doors inside single corrugated box. Packing time was reduced, shipping weight cut.

Source: Daryl Industries, Inc., Miami, Fla.

### METHOD:

Simplify packaging design.

### SAVINGS:

Package cost cut 50%  
(\$6 to \$2.96).

**PURCHASING WEEK ASKS . . .**

**Do you find it preferable to include a supplier acknowledgment copy with your purchase order?**



**J. E. Childs, purchasing agent, Canadian Schenley Ltd., Valleyfield, Quebec:**

"We feel acknowledgment copies are necessary. First, we want to know if the supplier has received the order. Second, we want to make sure there is no misunderstanding concerning terms and conditions—those which were negotiated as opposed to those printed on back of order. Third, we want delivery information confirmed. Exception may be made for orders less than \$100—unless item is critical, or for routine orders for delivery from stock."



**L. P. Foster, purchasing agent, R. R. Street & Co., Inc. (dry cleaning soap), Chicago:**

"Since most of our repetitive orders are covered by annual contracts which thoroughly spell out specifications and terms of sale, we ask for acknowledgments but do not insist on them. However, on orders for special equipment, material, or construction work, it is preferred practice for us to obtain a signed acknowledgment. We are then confident the supplier understands what is expected and it fulfills the legal aspects."



**F. R. Hoffman, assistant purchasing agent, Machinery Div., De Laval Steam Turbine Co., Trenton, N. J.:**

"We include a supplier acknowledgment copy with all purchase orders and insist on having it signed, dated, and returned to us promptly. The reasons are: (1) Without a properly executed acknowledgment, a legal contract does not exist, and (2) the acknowledgment is a basic tool in our follow-up activity because it shows exceptions our suppliers make in our delivery, quantity, price, terms, and other conditions."



**James Ulmer, manager, Cleveland Steel Specialty Co. (weldments & metal fabricating), Cleveland:**

"The value of a purchase order acknowledgment, of course, is to insure understanding on the part of the vendor of the conditions set forth in the order. Should the supplier question any of these, the acknowledgment copy is a ready-made means of communication, eliminating phone calls, wires, or letters. Too, by recording acknowledgment copies as they are returned, the purchaser may occasionally find that an order has gone astray."



**W. J. McCabe, purchasing agent, Eastern Rolling Mills, Inc. (ferrous & non-ferrous metals), New York:**

"It depends on the commodity. In purchasing plant equipment or any other major capital expenditure, we will enclose a supplier acknowledgment copy so there can be no misunderstanding on what was agreed on. However, we do not find this necessary when purchasing raw materials since, over the years, we have established certain standards we expect our suppliers to adhere to and they are aware of these standards."

**NEXT WEEK—APRIL 17**

**Six purchasing men answer this question:**

**What do you consider the basic responsibility differences between governmental and industrial purchasing?**

**You can suggest a question to be answered in this department by writing:**

**PURCHASING WEEK Asks  
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New York 36, N. Y.**

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## Follow-Up: Letters and Comments

### PW Asks

#### Boulder, Colo.

We were especially interested in the March 13 issue and the answers to your question, "What action do you take when a vendor gives a firm promise on critical material and fails to meet it?" ("PURCHASING WEEK Asks," p. 11). None of the answers given apparently dealt with really critical material.

We are frequently faced with the question, "What should we do on a sole source item wherein failure to deliver as promised will cause a catastrophe?"

We have found that the most effective action in such cases is negotiation of monetary rewards for delivery ahead of normal lead time and monetary penalties when promised deliveries are not met.

**Vernon M. Eckels**  
Assistant Purchasing Agent  
Boulder Division  
Beech Aircraft Corp.

#### Worcester, Mass.

Davis Philipson's remarks in your March 13 issue, page 11, were of great interest—especially the last paragraph where he states, "We usually are able to keep our promises to our valued customers since we, too, are a service operation."

Most P.A.'s forget this part of the deal.

**E. C. Stevens**  
Purchasing Agent  
Logan Division  
United States Envelope Co.

### Upgrading the P.A.

**Salt Lake City, Utah**  
I noticed the headline in your March 6 issue concerned with upgrading of purchasing personnel ("How the Upgrading in P.A. Personnel Is Shaping Up," p. 1).

This is something definitely needed in the purchasing profession. I hope some

time you will do an article on the need to classify or grade these various levels of membership in purchasing, something similar to what is done in the Purchasing Officers' Assn. in England.

We have tried (unsuccessfully) to establish a type of grading in our local association.

**William L. Christensen**  
Purchasing Agent  
University of Utah

### Copying Machines

#### Pittsburgh, Pa.

We read with interest in your March 6 issue the article "Data to Help You Make the Right Move When You Buy Office Copying Machines for Your Company," page 28.

We would like to know where we may contact the BBM Photocopy Mfg.

**R. J. Conley**  
Purchasing Agent  
Pittsburgh Plate Glass Co.

• This firm is located at: 42 West 15th Street, New York, N. Y.

### Add Cheers

#### Jackson, Mich.

I would like to add my cheers to those you received from Russ Petreat on the addition of Joseph Nicholson to your staff (PW, March 20, '61, "Follow-Up," p. 18).

He was a vital factor in the development and success of the National Institute of Governmental Purchasing and always was willing and anxious to help us "small guys" with our problems.

**Lloyd M. Head**  
City Purchasing Agent

### To Our Readers

This is your column. Write on any subject you think will interest purchasing executives. While your letters should be signed, if you prefer we'll publish them anonymously.

Send your letters to: "Follow-Up," PURCHASING WEEK, 330 West 42nd St., New York 36, N. Y.

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## Postscript on Follow-Up

St. Louis, Mo.

I read with a great deal of interest the answers to the question "Do you feel vendors should bear the cost of follow-up telegrams on over-due orders?" (PW, Feb. 16, '61, "PURCHASING WEEK Asks", p. 11).

This matter of follow-up has been of great concern to me for some time—not so much because it's a question of who should pay for the telegrams or telephone calls, but rather: Why is it necessary that we should have to follow-up as often as we do?

My personal feeling is that most salesmen are anxious enough to get an order but from that point on "you're strictly on your own." Should delivery be of concern to the salesman?

I think it would be rather interesting to know the company policy of each of the purchasing men who answered your question on overdue orders, on accepting collect telegrams and long distance phone calls from their customers.

I, myself, do not like to send collect telegrams or place collect long distance calls; however, the increasing need to trace past due orders is fast reaching the point where we may have no alternative but to put this added cost burden on our suppliers where they are definitely at fault in not meeting a promised delivery date.

Joseph P. Stagg  
Purchasing Agent  
Saint Louis University

• Here's what our Feb. 16 PURCHASING WEEK Asks respondents had to say regarding Mr. Stagg's comments:

P. J. Martellaro, A. S. Aloe Co., division of Brunswick Corp., Silver Spring, Md.—We have yet to refuse a collect long distance phone call from any of our customers concerning deliveries.

We feel it would be poor customer relations if we refused to answer such calls or telegrams. If vendors would have this same attitude toward their dealers, I'm sure there would be a better service between vendor dealers and consumers.

We have had numerous refusals from our suppliers on collect long distance phone calls and no acknowledgements on collect telegrams.

S. M. Howard, Electric Hose & Rubber Co., Wilmington, Del.—We feel it is our sole responsibility to keep our customers well informed on the status of their orders. However, we have never refused a collect telegram or phone call.

We have had some of our customers inform us by letter that starting at once, routine follow-up for delivery of material on any order is being eliminated. We have advised each customer by letter that we are very much in agreement with this procedure.

Of course, there are too many contingencies that could develop to guarantee a shipping date—material can go bad unexpectedly in production—a sub-supplier can fail to keep a promise, etc. We have been involved in transactions where premium transportation charges have been paid by us because orders were not shipped as "promised."

P. W. Stauffer, Triplett Elec-

trical Instrument Co., Bluffton, Ohio—Company policy is in accord with purchasing's policy in expediting. Our sales department expects the customer to bear the costs of expediting unless failure to deliver at acknowledged time is our company's fault.

Where it appears to be to the best interest of buyer-seller relationships to accept collect calls such a practice is allowed. The chronic "collect call" expediters are easily detected, and their requests for free calls are refused after several repeats.

We do accept collect calls and wires, but with a certain amount of discretion. Unfortunately, there are those who will take advantage of this by sending telegrams and TWX's that are yards long when the messages could be kept brief and concise.

It is the policy of our marketing and sales department to take the offensive, since that is the best

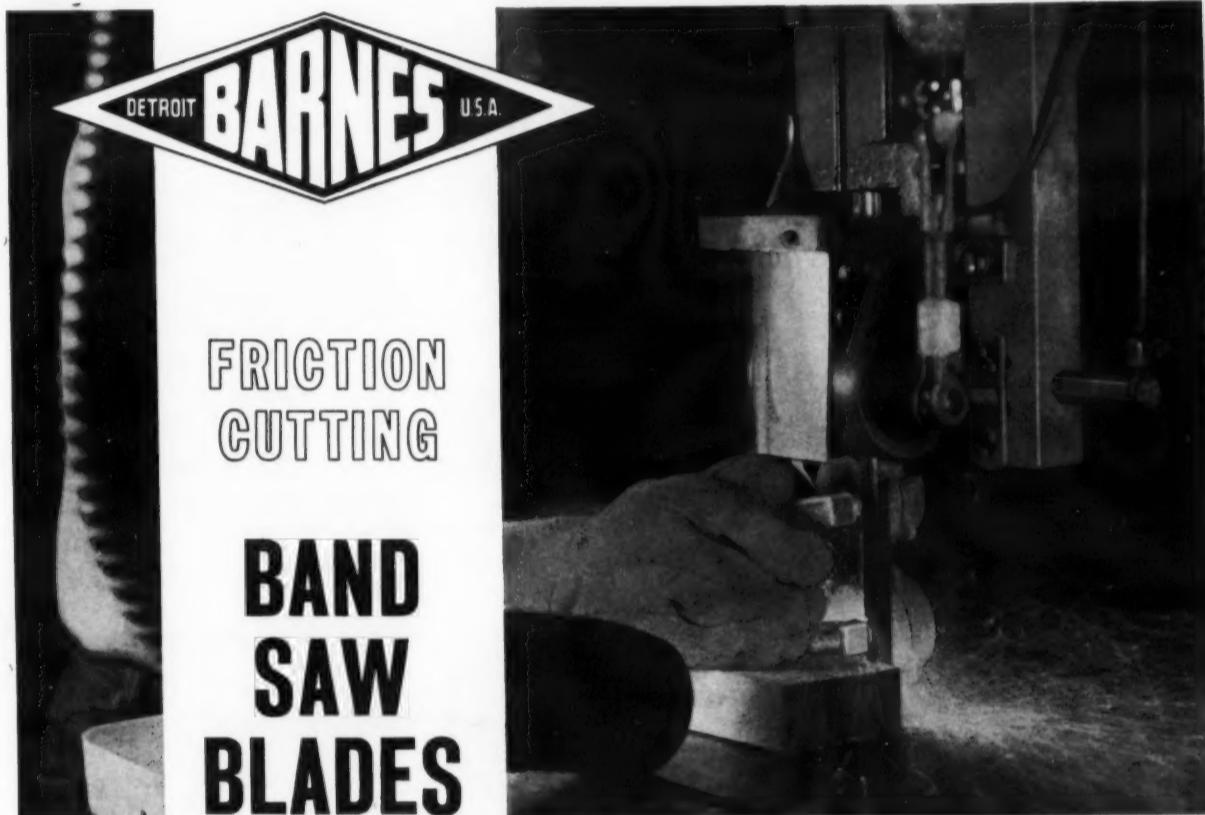
defense, by making every effort to keep our customers informed as to the status of our orders with them.

H. M. Zimmermann, Kearfott Div., General Precision, Inc., Little Falls, N. J.—We do not have anything in our written policies that clearly states that in the case of a delinquency we will charge back or make a collect call to a vendor. This is generally done by a mutual agreement with the vendor that he will accept collect calls if he is delinquent.

Our buyers are now receiving a weekly IBM status report showing the status of each vendor and

pointing out to the buyer where he must spend his time in expediting.

We make a weekly check between our various purchasing departments to find out if the same vendor is delinquent with other departments as well as ours. This vendor is then called in and given a number of days in which to put his house in order and bring his delinquencies up to date, or we call a moratorium and notify all buyers and purchasing agents that no more orders are to go to this vendor until he is up to date with his orders. If this does not work, the vendor is then automatically dropped from our vendors list and so notified.



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**USAGE EXPANDING:** Compromise in dispute between general commodity truckers and bulk haulers is expected to widen use of collapsible containers. Biggest hold 4,000 gal. liquids, 18,000 lb. solids.

## ICC Paves Way for Wider Use of Freight Bags

**Washington** — The Interstate Commerce Commission has cleared the way for expanded use of collapsible, rubberized freight bags.

The bags, used principally for shipments of various types of chemicals and grains, can accommodate a wide range of liquid, granular, powdered, and paste products—from liquid latex, paints, resins, and detergents to chocolate. When emptied, they collapse and can be easily stowed away like a conventional bag.

For the past two years a heated

dispute has been raging between general commodity truckers and bulk commodity truckers over who should be authorized to haul the new containers. The ICC has now ordered a compromise in the dispute.

The issue arose when Western Express Co., subsequently joined by some of the nation's largest common carrier truckers, filed for permission to handle the containers. Their operating certificates prohibit them from hauling commodities in bulk or commodities requiring special handling.

But they argued that this prohibition should not keep them from transporting goods in freight bags, even though the containers accommodate only one commodity in bulk amounts. From a legal standpoint, they said, they are forbidden to haul bulk commodities only when the goods have to be poured, pumped, or dumped directly into a truck and the commodities then assume and are confined by the interior of the vehicle. Freight bags, on the other hand, are merely another type of "package" which haulers of general freight should be allowed to transport, they said.

This position was strongly opposed by tank truckers and railroads, traditionally the principal movers of bulk commodities. The tank truckers argued that the freight bag is really a "cargo tank" and its use on a motor vehicle makes the vehicle a "tank truck."

### Shippers Back Plea

Shippers—mostly chemical, rubber, and food companies—supported the plea of the general commodity truckers. They maintained that these truckers would do more to promote efficient development of the freight bags and would provide lower rates.

Tank truck operators, they said, would be reluctant to supplement existing equipment with the new containers. And they pointed out that general commodity haulers would be able to use the collapsible bags on outbound freight movements, then—after emptying them—pick up general freight as payload return movement. This would lead to lower rates than those that are now provided by tank trucks, which often return empty on the back haul.

### ICC Takes Middle Position

In ruling on this dispute, ICC took a middle-of-the-road position. It said that general commodity haulers can transport freight bags if they are loaded on the ground and then placed aboard the truck by forklift, crane, or otherwise. But it prohibited them from hauling pre-mounted bags which are filled on the vehicle. This is the province of the tank truckers.

In adopting this stand, the commission dealt a blow to the smaller shipper wanting to make use of freight bags. The reason is that the bags can be filled faster and at less expense if left on a truck trailer. To provide special loading equipment will be costly to smaller shippers, and it remains to be seen how many general commodity truckers will be willing to provide the equipment themselves.

### REA Express Organizes Special Air Service Unit

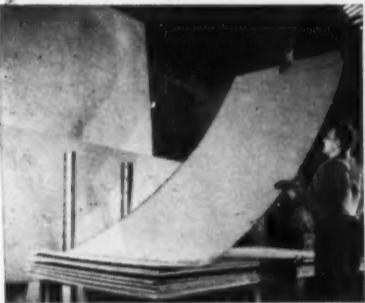
**New York**—REA Express has streamlined the management end of its air cargo operations by creating a special Air Services Dept.

The new unit will be in charge of all domestic Air Express and international air cargo services, including those air shipments that are coordinated with surface movements.

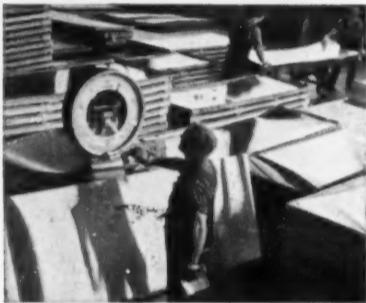
REA also reported that it intends to start flying express shipments to and from Alaska.

## BUYERS' GUIDE...

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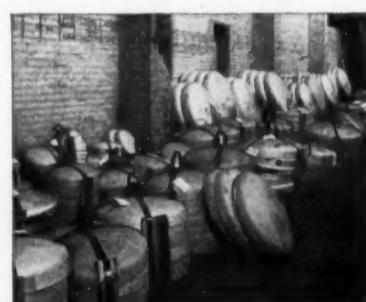
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## Presidential Reorganization Urged For Maritime Regulatory Agencies

Washington — A Presidential reorganization of the Federal Maritime Board and the Maritime Administration is being sought by Rep. Emanuel Celler (D-N.Y.), chairman of the House Judiciary Committee. Celler wants President Kennedy to separate the federal regulatory controls exercised over ocean shipping from the job of dealing out subsidies and promoting the American merchant marine.

Widespread violations of shipping regulations have occurred under the present setup, Celler charges. Some 210 apparent violations turned up by Celler's antitrust subcommittee are now under investigation by the Federal Maritime Board.

Right now, the three-man Federal Maritime Board is charged with regulating the shipping industry, handing out construction and operating subsidies, and promoting a strong merchant marine. The Maritime Administration carries out the administrative functions for the board. The chairman of the board, Thomas E. Stakem, also serves as administrator for the Maritime Administration. Both offices are integrated in the Dept. of Commerce. But the board is independent in making decisions.

Celler charges that the board devotes its main efforts to promoting the merchant marine and making subsidy determinations, "relegating the vital task of regulation to subordinate sta-

tus." As such, the New York congressman wants the duties separated and placed under two independent boards.

Back in 1950, the Maritime Administration was shifted to its present arrangement from a five-commissioner independent agency. The reason for making the change at that time was to consolidate decision making to a small board because the five commissioners had trouble reaching agreement.

## CF&I Urges Congress To Hike Bid Differential On Federal Contracts

Denver—Colorado Fuel & Iron Corp. has sent letters to members of Congress asking them to raise the differential favoring domestic firms in bidding on government contracts from 6% to 25%.

CF&I President A. F. Franz said the move was necessary because many segments of the U. S. steel industry had been hurt a lot more by foreign competition than the 1960 import-export statistics tend to indicate.

While over-all figures show a relative balance, with steel imports at 3,720,349 tons and exports at 3,100,711 tons, a favorable trade margin existed only for flat rolled products, where imports were 390,213 tons compared with exports of 2,019,107 tons, Franz said. On the other hand, imports of rods, tubes, wire, and other products made by CF&I amounted to 2,946,080 tons against exports of only 699,203 tons, he said.

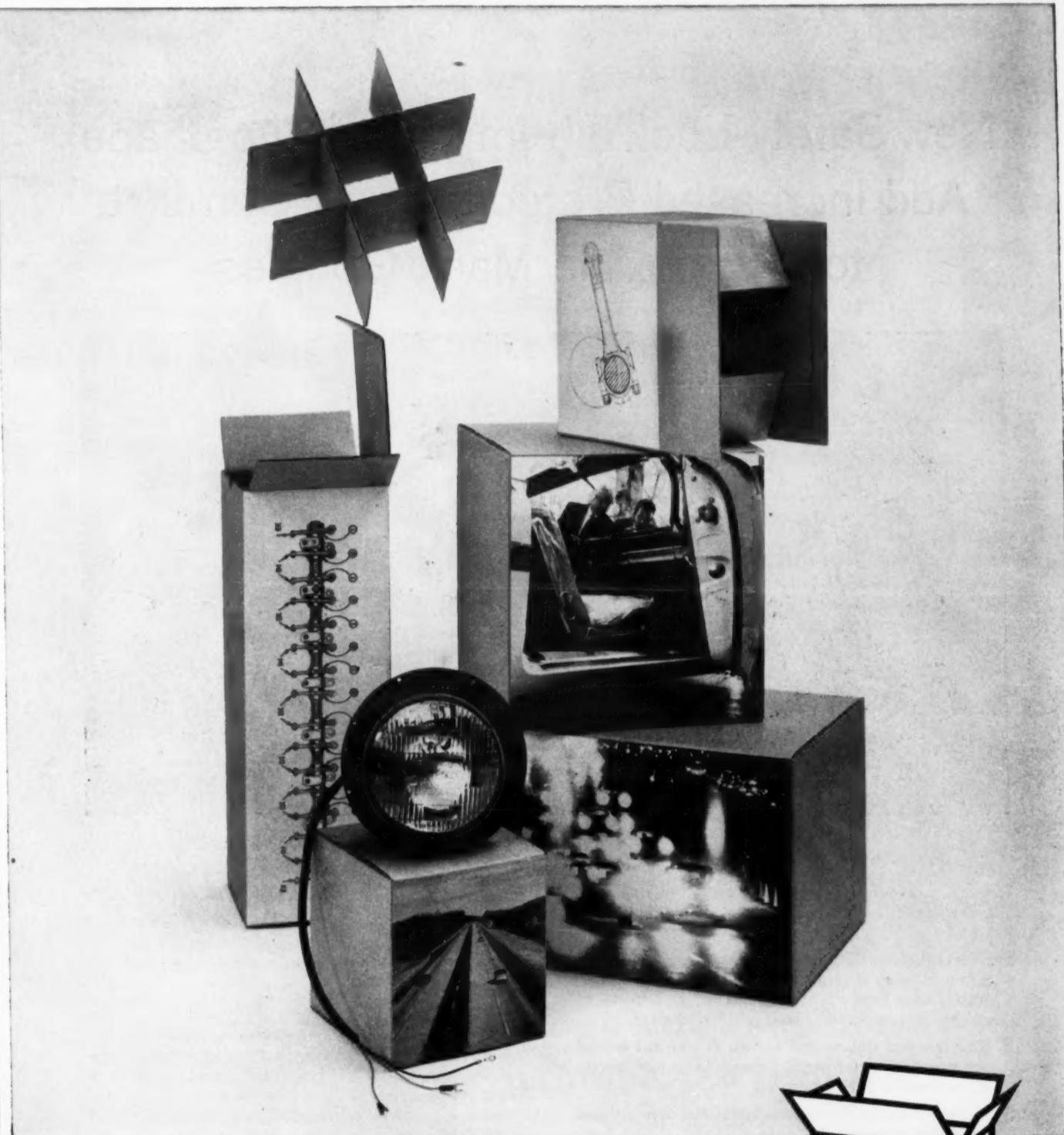
### Low Bid by Westinghouse

Tacoma, Wash. — Tacoma's Public Utility Board has purchased a second double-ended substation from the Westinghouse Electric Corp. on its low bid of \$85,962.

Tacoma City Light bought one at that price in February and was so pleased with the bids it had decided to advertise quickly for another, said A. J. Benedetti, acting utilities director. A unit substation purchased previously by the city had cost more than \$150,000.



ALL-AMERICAN DELIVERY: Gordon Berendsen, retail sales supervisor for Smith-Corona Merchant in San Francisco, leaves no doubt about his stand on "Buy American" issues, as car window sign clearly shows.



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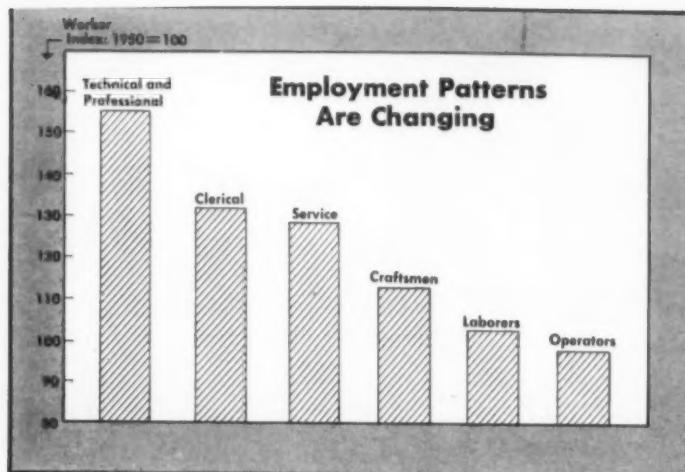
17 Plants • 42 Sales Offices • Sandusky, Ohio

## GE Creates New Unit

Pittsfield, Mass. — General Electric has created a foreign sales section in its Distribution Transformer Dept. here as part of a general reorganization of the unit's sales operation.

Under the new domestic alignment, there are Eastern, Central and Southern, and Western sales districts. Previously, there were separate units for the Central and Southern areas.

GE said the new foreign section also will handle domestic sales of transformer components and renewal parts. Main reason for the realignment, said GE, is the increasing world market.



## House Takes Up Explosive Issue of Automation

**New York**—Automation once again is becoming a red hot issue, as labor and management lock horns over the question of how much of today's near record jobless rate can be blamed on the increasing trend toward mechanization.

Both sides are taking their arguments to the House Labor Subcommittee on Automation which is charged with finding out just what effect labor-saving equipment has on the over-all economy.

Industry's view was presented

last week by R. Conrad Cooper, executive vice president of U. S. Steel. He told lawmakers that automation has little bearing on the immediate unemployment problem in the steel industry.

To back up his argument, Cooper pointed out that the rate of attrition (through retirement, death, and voluntary quitting) is above the long-run 2% rate of productivity gain. This means, he explained, that "there is no over-all long-term problem of technological unemployment in steel. Clearly

even at a constant level of business, the steel industry will be hiring new employees."

### Labor's Viewpoint

Labor counters with some significant statistics of its own. Union spokesmen point out that in the past decade the number of production workers has remained relatively static while output has shot up by approximately 44%.

Recent testimony by Patrick E. Gorman, secretary-treasurer of the AFL-CIO Meatcutters Union, typifies this viewpoint. He called automation a "haunting spectre" for 350,000 meat workers—citing the loss of 20,000 jobs in the Chicago area alone.

Other labor leaders are taking a different tack. Thus, Walter Reuther says he welcomes automation—as long as jobs are provided for everybody who wants to work.

### Fewer Unskilled Jobs

One of the few things both sides agree on is that automation has made for a sharp shift in the job market—away from the lower rungs of the labor ladder (laborers, operators) and toward professional and technical personnel.

The chart at left tells the story. Note that the number of operators (unskilled workers) in the U. S. today is actually below the level prevailing a decade ago. Professional and technical people, meanwhile, have increased more than 50% over the same period.

The Chase-Manhattan Bank presents a less partisan view of the issue in a new economic analysis appearing in the March-April issue of its "Business in Brief."

Without taking sides, Chase Manhattan points out that most of today's problems arising out of automation can be traced to three factors:

1. **The all-inclusiveness of automation.** Where in the past mechanization usually applied to one operation, today automation usually takes up every aspect of a firm's activity—including clerical, production, and quality control all in one gigantic setup.

2. **The speed with which automation is catching on.** Bank economists state: "Automation is being introduced at a faster pace than the technological changes of earlier days."

3. **The mature state of the U. S. economy.** The bank points out that the U. S. is now "an advanced, high-consumption economy. As labor is released, it can find other employment only if over-all demand for goods and services expands."

### Automation Soaring

On the question of speed, some figures compiled by John Diebold & Associates, Inc., show that fully automated installations have zoomed above the \$6-billion mark—up 75% from six years earlier.

And this is just skimming the surface. For example, it would take \$500-billion and 55 years to fully automate all American manufacturing processes, according to Chase-Manhattan economists.

## New Safety-Lock Tab-Improved Cup Shape Add Increased Protection and Comfort to AO Flexible Mask Goggles



Here are four improvements that make these new AO Vinylite Mask Goggles safer to use, more comfortable to wear:

- 1 New lock tab, with snap button, holds lens securely to frame at point of greatest stress, improves fit around entire frame. Lens will not pop out, but can be removed quickly and easily for cleaning or replacement.
- 2 New recessed slots at end of cup fit over and around temples of safety (or regular) glasses to keep entire cup edges in contact with face.
- 3 Increased eye cup depth gives additional coverage and protection at temples.

- 4 Improved flash around entire edge of mask molds to contours of face.

Lightweight, well-ventilated, extra-large face mask and .050" thick acetate lens assure the wearer of comfortable, optically correct, wide-angle vision while protecting entire eye area.

Your nearest AO Safety Products Representative now has this improved new model in impact goggles, chemical goggles, welding goggles, or chipping and grinding goggles, as well as two special models for maximum protection against chemical splash. Contact him today, or write for detailed folder, S-1229.

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# Profitable Reading for P.A.'s

## New Books

**Business English and Communication**, by Marie M. Stewart, E. Lillian Hutchinson, Frank W. Lanham, and Kenneth Zimmer. Published by McGraw-Hill Publishing Co., 330 W. 42nd St., New York 36, N. Y., 564 pages. Price: \$4.28.

This comprehensive textbook, now in its second edition, is based on the idea that effective business English is correct English. Although this may appear as a truism to some, it's overlooked all too often, as the authors point out, by rationalizers who attempt to "justify the 'sugar coating' of English usage on the theory that what seems 'natural' is correct."

Designed for people in all walks of business life—the retailer, stenographer, secretary, accountant, general office worker, etc.—the book covers a wide range of topics, from the art of conversation to new forms of business writing. Learning exercises and end-of-unit tests give the reader an opportunity to check his understanding of important points covered.

**Elements of Business Enterprise**, by Dwight L. Gentry and Charles A. Taff. Published by Ronald Press Co., 15 East 26th St., New York 10, N. Y., 705 pages. Price: \$7.00.

This is a treatise on the fundamentals of our free enterprise system, which aims to give the beginning student a generalized knowledge of the entire field of business management to prepare him for dealing with more specific management problems. For more advanced readers, the authors have attempted to discuss business enterprise in terms of a dynamic context which is comprised of the social, political, moral, and economic fiber of the United States.

The text is organized into five sections: Business Management Background; Organizing the Enterprise; Industrial Production and Employee Relations; Distributing Goods and Services; and Other Specialized Areas of Management. Discussion questions and short cases at the end of each chapter help the reader clarify his understanding of business problems as they affect (and are affected by) other elements of the social structure.

## From the Manufacturers

### Photoelectric Controls

Case history handbook details how company's Infrabeam photoelectric controls solved 40 typical operational problems in materials handling, equipment and personnel protection, production, and automatic control. (80 pages). *Electronics Div., Cramer Controls Corp., Centerbrook, Conn.*

### Elevator Components

Features simplified selection charts for centrifugal and continuous discharge elevator components. Includes basic data on chains, buckets, sprockets, bearings, and take-ups. Bulletin 6057P (24 pages). *Sales Promotion Dept., Chain Belt Co., Milwaukee 1, Wis.*

### Trucks

Contains documented case histories on the economy and general performance of Volkswagen trucks in typical use in 15 industries. (60 pages). *Volkswagen of America, Englewood Cliffs, N. J.*

### Valves and Fittings

Describes company's line of valves and fittings. Includes data such as: product weights, ASTM metal classifications, capacity tables for safety and relief valves,

etc. Catalog #60 (464 pages). *Crane Co., 836 S. Michigan Ave., Chicago, Ill.*

### Magnetic Ink

Explains magnetic ink character recognition (MICR) and answers 142 most frequently asked questions about magnetic ink check encoding. Also included are details of check book use and American Bankers' Assn. specifications for MICR (48 pages). *A. B. Dick Co., 5700 W. Touhy Ave., Chicago, Ill.*

### Limit Switches

Describes GE's line of limit switches for automatic pilot control. Includes an application guide, listing of limit switch terminology, typical dimensions, and more. Bulletin GEA-7312 (12 pages). *General Electric Co., Schenectady 5, N. Y.*

### Cutting Fluids

Presents data on 26 types of Shear Speed cutting fluids and lubricants. Covers soluble concentrates in three sections: (1) for fine finishes and good tool life under extreme conditions, (2) for stainless alloys and non-ferrous application, and (3) for

general plant use. (52 pages). *Shear-Speed Chem. Products Div., Michigan Tool Co., 7125 E. McNichols Road, Detroit 12, Mich.*

### Thermal Insulation

Describes thermal insulations in applications ranging from -400 F to 3000 F. Insulations discussed include: industrial and high temperature, heating, refrigeration, finishes and weatherproofing materials, etc. Gives detailed specification data, applications, advantages, etc. IN-244A (64 pages). *Johns-Manville Corp., 22 E. 40th St., New York 16, N. Y.*



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## PROFESSIONAL PERSPECTIVE



**CONSULTANT F. ALBERT HAYES**  
Interprets This Headline  
From PW's March 27 Issue  
"P.A.'s Say 'No'  
To Future Inventory Scrambles"

The special P/W survey in the March 27 issue points up "The Inventory Revolution" in terms of the decline in sales/inventory ratio which has occurred since 1958. Now smaller inventories can support a given rate of sale. The overwhelming

majority of those surveyed predict that the future holds no inventory buying waves similar to those following previous recessions, barring national emergencies on runaway inflation.

**That's quite a hedge on an opinion, but, accepting it optimistically, what is the reason for the change?**

One contributor says, "We've learned something. Various control points will be used to avoid huge inventory gluts." This adds up to better management of inventory as an asset able to contribute to profit. P/W's chief editor, Edgar A. Grunwald, in a recent trip to Pittsburgh visited six large firms, all of which used sales-inventory ratios as a working tool in purchasing. Without exception, they were hep to the concept of cost of possession and said the ratio of inventory to sales would not be raised unless the savings from increased quantity buying more than offset the increased costs of possessions.

**That is a practical formula, which has been adopted by many other firms.**

It appears that a better job is now being done, but that the

achievement, rather than being a byproduct of a recession, has resulted from better management applied to the procurement function. The cost of possession is an important factor in inventory management and the better understanding of the components of this cost has contributed greatly to the "inventory revolution."

While most large industrial firms have determined with some exactitude their "cost of possession," I have found a considerable variation in the various components of the carrying charges. P/W's article and EOV booklet contained a table showing the components of carrying charges or costs of possession. We did not intend to be dogmatic as to the content of carrying charges or the percentages assigned to any component. Rather, you have to "roll your own," based on your study of your own conditions.

### Variation in Practice

The PW study showed considerable variation in practice not only in Items 1 and 10 of the EOV booklet list below, but also on other items (Nos. 11-18) submitted.

Only four account categories were common to all; these four (designated by an asterisk in the table below) show a wide difference.

Components published by P W
*1. Interest on investment .....
*2. Space charge .....
3. Handling charges .....
4. Supplies .....
5. Insurance .....
*6. Taxes .....
7. Obsolescence .....
8. Depreciation .....
9. Deterioration .....
10. Use of money elsewhere .....
Used by Others in Addition
To Some of Items 1-10
11. Stores operation
12. Equipment charge
13. Physical Inventory change
14. Appreciation
15. Accounting costs
16. Other misc. charges which would not be incurred in the absence of any inventory
17. Indeterminate
18. Purchasing

Total carrying costs ranged from 6% to 35%, but, surprisingly, most frequently the figure was very close to 24% per year or 2% per month. Thus, the P/W EOV tables based on yearly carrying costs of 12%, 18%, and 24% would cover most industrial buyers.

**To what extent do these categories apply to a particular firm?** Items No. 1 and No. 10 appear to be the most common points in question.

Take Item No. 1. A firm with funds available beyond operating needs has the problem of its disposal: Should it be used for increased dividends? Expansions? Reserve for contingencies? There will be competition for it among managers and plenty of it. Under such happy circumstances inventory should not be charged in Item 1 with more than the return on total investment.

A firm running on credit and borrowing money is something else again, and its inventory will be competing for the use of money with other departments which claim a greater return—say product development or new equipment. Here inventory may be charged an extra amount over and above that normally included in Item 1 as return on investment. It may be reflected in a larger percent in No. 1 (return on investment) or as a separate percent in Item 10 (use of money). This appears to be the philosophy of the firms which make such charge, and I included it as a consideration because substantial and successful firms do so.



## Your 2 factors in steel costs...

Steel is a low-cost material. But when you tie up your money in it, store it, insure it, pay taxes on it, buy equipment to handle it, cut and burn it—you often add unnecessarily to this low cost. And the big question is whether you or your nearby steel service center should perform these functions. The wisest thing to do is to find out.

Each steel user's case is different. Your steel service center will be glad to help you determine

the most economical way to buy steel. Figure all your costs of possession, such as:

Cost of capital:	Cost of operation:	Other costs:
Inventory	Space	Obsolescence
Space	Materials handling	Insurance
Equipment	Cutting & burning	Taxes
	Scrap & wastage	Accounting

Call your steel service center, or write for free booklet, "What's Your Real Cost of Possession for Steel?"



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Another controversial item is obsolescence. However, EOV is a tool for the control of an inventory of medium value items whose obsolescence is relatively low. Items of high value and volatile price should be controlled continuously, by other means, and here EOV has little or no application. The same is true of items of medium or low value which have very high obsolescence, short shelf life, or which always must be on hand.

It may be desirable to segregate carrying costs by classes of inventories or even by particular commodities or groups of commodities. Whether this is worth while or not can be easily determined by use of the P/W tables.

The inventories with which we are concerned are only those of the raw materials and purchased components which enter into the production of a given product in process. Finished inventories are not the primary concern of the purchasing department, although undoubtedly they have an interest. Depending on the accounting method (particularly where LIFO is used), P.A. buying practices in the last quarter of the fiscal year may be drastically affected.

A raw stores inventory consists of the following components: (1) safety stocks, (2) the working inventory, (3) the additions to the working inventory in anticipation of price increase (speculation). Studies of cost of possession have brought about more strict and

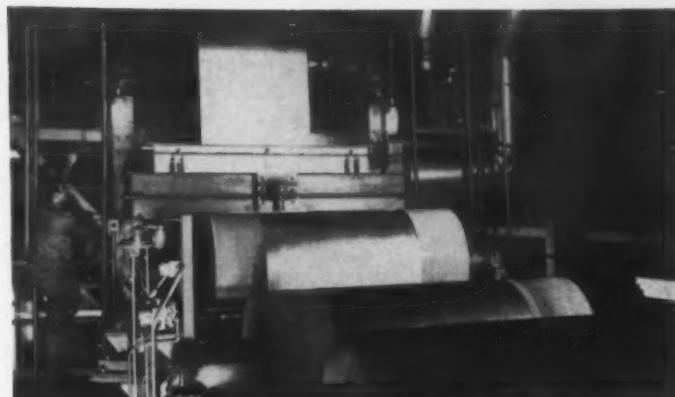
better controls of the critical and most costly components of inventories, and a closer scrutiny of the safety stocks. As for the third factor, measuring its effectiveness requires segregating the profit or loss resulting from forward buying in excess of immediate needs of the past inventory.

**Do not overlook the fact that an inventory is the result of action based on a sales forecast—when the forecast is taken as gospel.**

An inventory under those circumstances can be no better than the forecast. Therefore, from the March 27 article, it appears over-all progress also has been made in this important area of forecasting, enabling the purchas-

ing agent to proceed with a degree of confidence not always available in the past. It is a fact that with increasing frequency the purchasing agent has become a part of the top management group in the plans committee, thus making available his specialized information on broad market trends as they may affect the commodities and components entering into the finished product.

An objective of any purchasing department is to "buy right"—with all that means in terms of timing, quantity, quality, service, and price—and, furthermore, to do this with the minimum investment, consistency, safety, and economic advantage.



**GLEAMING:** 48-in. aluminum coil streams from chemical bath at rate of 150 ft./min. on newly expanded Litho-Strip Corp. continuous coating line in Chicago. Line is claimed to be the largest in the country.

## B&L Shuts Warehouse To Put More Stress On Supplying Steel Centers

**Chicago**—Bliss & Laughlin, a producer of cold-finished steel bars, says it has permanently abandoned its warehousing operation here and would concentrate on supplying steel service centers.

The company liquidated its warehouse and transferred tools and inventory to other locations. The warehouse, which was the only one operated by B&L, has been in operation for 40 years.

B&L explained that it would not be able to supply adequately the growing steel service center market and at the same time divert a portion of production to its own warehouse. In addition, the company noted that sales volume of the warehouse, while once "substantial," had been declining in recent years.

B&L also reported that it plans to open at least one new plant this year. The company already has facilities at Harvey, Ill.; Detroit; Buffalo; Mansfield, Mass.; Los Angeles, and Seattle. The site of the new plant has not yet been determined.

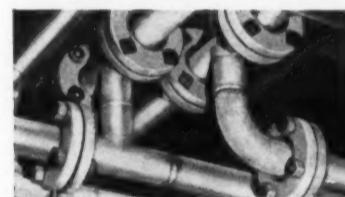
### Armstrong Adds Line

**Lancaster, Pa.**—Armstrong Cork Co. is organizing a special system of manufacturer's representatives and janitorial supply houses in preparation for its entry into the commercial floor maintenance field. Armstrong said the new maintenance products, designed specifically for commercial and institutional buildings, will not compete in any way with its existing line of residential floor products, which are sold through wholesale distributors and resilient flooring retail stores.

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Purchasing Week

April 10, 1961

## Steel Import Prices Cut in New Bid for U.S. Sales

New York—European steel makers have cut prices slightly in an attempt to boost sagging sales in the U. S. But the attempt apparently is doomed to failure; both European and Japanese steel sellers expect 1961 U. S. tonnage to fall sharply from last year's volume.

"Imports have been declining for months, and this year will probably be much closer to 1958 tonnage than 1960," said one foreign steel observer. Since the U. S. imported 1.7-million tons in 1958, this means a drastic

drop from last year's 3.5-million volume (see chart).

Booming demand abroad was cited as one reason for the drop in U. S. import tonnage. This demand may be peaking out, but it's still high enough to keep overseas steel makers busy in markets close to home.

"Our quotes have risen to within 5% of domestic prices," comments an important European steel trader, "and our delivery times have lengthened to the point where the delay offsets whatever savings we can offer."

"Japan just doesn't have too much steel available for the U. S. market," says a Japanese steel importer. "Besides her terrific domestic demand, her southeast Asia order backlog will take a large part of her production for months to come."

### Product by Product

On a product-by-product basis Japanese importers feel that reinforcing bars won't be available in sufficient quantities to satisfy expected demand, but that Japanese mills will try to keep regular customers supplied with wire products and nails. For Japanese structural shapes, slow U. S. demand is more of a factor in reducing import volume than is available supply.

European steel importers look for sharp drops in all their important product categories—reinforcing bars, structural shapes, wire, and pipes and tubing.

### Future Worries for Europe

While Japanese traders foresee no problem in selling most of the steel they can get for the U. S., European importers worry that domestic competition will limit their sales even when they're ready to renew their drive on the U. S. market.

"The American steel industry is breaking its own price book to get business," said one major European steel importer. "They're selling small quantities at base price. And their delivery time is so short now that inventory people are living off the tailgates of domestic mill trucks."

"The only chance for imported steel to pick up," he said, "is for some major manufacturing group like automobiles to have a surge in inventory building. Then U. S. mills will start charging extras again and getting back to normal delivery times, and we'll become more competitive."

### German Prices to Rise

The recent revaluation of the German mark—now 5% higher in terms of U. S. currency—is expected to contribute to the steel import decline.

"German mills will have to raise their export prices in the second quarter and that will hurt them here," observes one importer of German steel.

Germany figures high in U. S. imports of wire rods, reinforcing bars, wire, and steel pipe and tubing. But some traders look for France to replace Germany as Europe's second most important exporter to the U. S. Belgium-Luxembourg ranks first in exports to the U. S.

About the only optimistic note sounded by European steel importers was the fact that the U. S. drive to cut costs was gaining customers among big steel users.

### New Price Cut

Atlanta—Atlantic Steel Co., under pressure of import competition, has cut prices on reinforcing bars to \$100/ton f.o.b. Atlanta in carload lots. The mill base price on reinforcing bars quoted by most producers around the country had been \$5.675/100 lb. with freight allowances. Atlantic said the reduction, effective March 28, was necessary to combat competition from overseas producers.



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Garmold Plastics Division, Totowa Borough, New Jersey



CONTAINER CORPORATION OF AMERICA, CHICAGO 3, ILLINOIS

## SEATTLE PERSPECTIVE



P/W BUREAU CHIEF RAY BLOOMBERG  
Focuses a Purchasing Spotlight  
On the Pacific Northwest

**T**HIS area of the Pacific Northwest is looking toward the forthcoming Century 21 Exposition to provide a much needed shot in the economic arm. The exposition, which is billed as "America's Space Age World's Fair," will open its

doors to the world in Seattle, April 21, 1962, and continue running for the next six months.

The multimillion-dollar impact of the fair already is being felt. Public buildings costing an estimated \$23-million are under construction or programmed. Additional millions will be spent by private exhibitors. And the fair management has just appointed a purchasing agent, Dewey Bouck, who believes he has not only the newest purchasing job in the Pacific Northwest but one of the most interesting.

Between now and opening day next year, Bouck expects to make purchases totaling \$3.5-million and to negotiate hundreds of thousands of dollars in equipment leases.

• • •  
Century 21 will be the first international exposition held in the United States for 23 years. Greater Seattle is gearing to provide lodging and other facilities for 45,000 visitors daily.

The Seattle area, of course, is fully anticipating some long-range benefits from the exposition. Industrial and business

leaders would like to see an influx of new industry after the exodus of sightseers.

This region's economy traditionally has been based upon the forest products industry—lumber, plywood and pulp. But this base has been weakening in recent years with depletion of resources, competition from other materials, and—most recently—decline in residential construction. Last winter was a tough one for the man in the woods, price-wise, and the entire area felt the pinch.

• • •  
But the aircraft industry, represented almost entirely by Boeing Airplane Co., has gained. Indeed, the presence of Boeing has prevented a real economic tailspin here. The company's payroll has declined somewhat from previous levels but now appears to have stabilized at about 57,000 workers, as compared to less than 50,000 in the logging industry of the state.

Furthermore, Boeing's future looks much brighter than it did a few years ago because of the success of its Minuteman missile and commercial transport programs.

• • •  
The question of bringing in new industry—and thus establishing new sources of supply—is a major concern of purchasing executives in Washington. The state's Purchasing Agents Assn. just completed a broad survey showing that industrial P.A.'s in Washington made purchases that probably exceeded \$2½-billion last year. But the 181 firms participating in the survey (275 were polled) reported only a little more than \$345-million of the total purchases were from suppliers in the state of Washington.

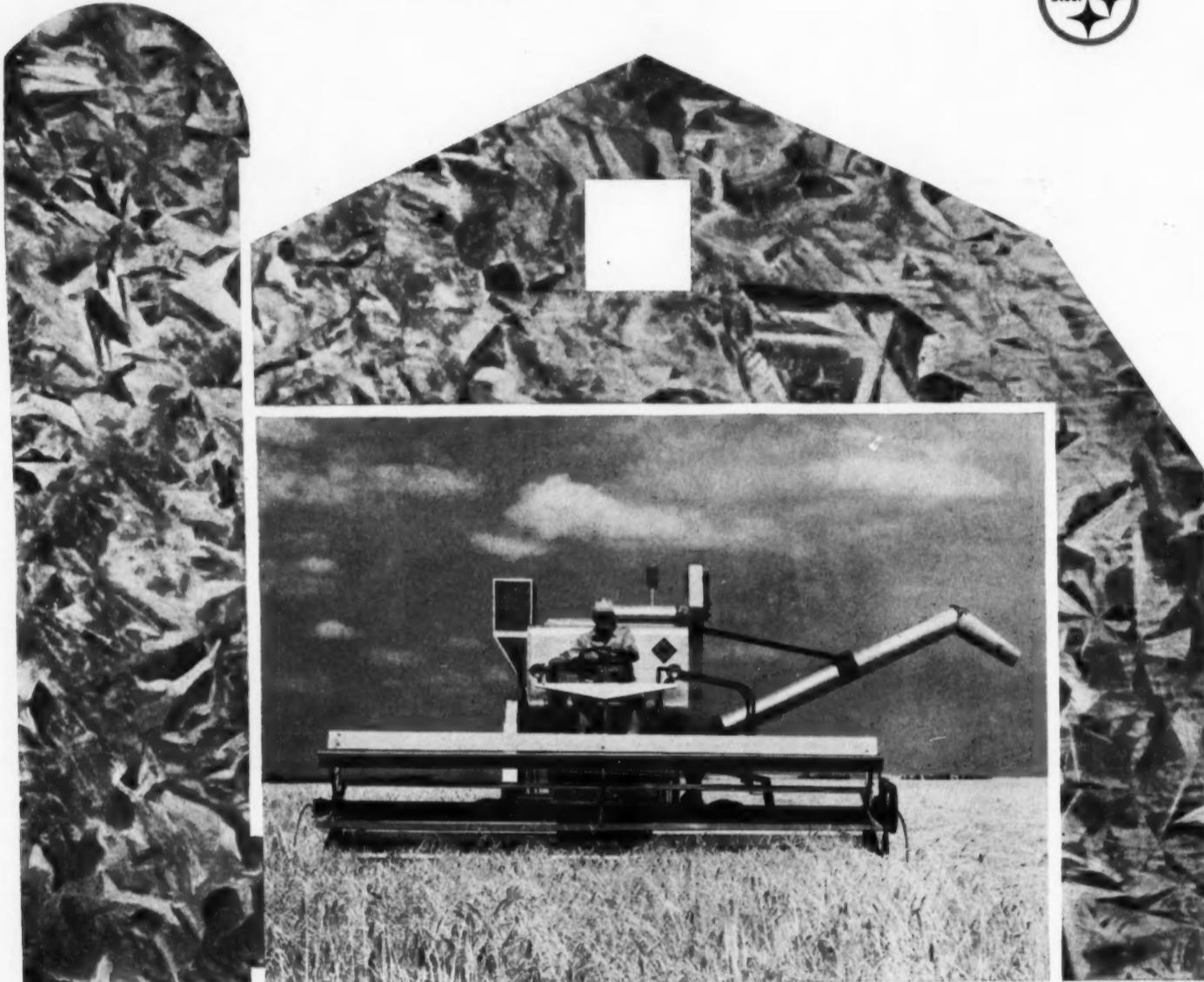
The PAA survey apparently was the first ever undertaken locally to determine the volume of industrial purchasing, according to Blair McTaggart of American Marietta Co., vice president of the association. Further studies may be made to determine the feasibility of establishing local sources of supply for some items now being purchased outside the state.

• • •  
Another kind of competition—foreign suppliers—also needles some segments of the local industrial economy. The Washington Purchasing Agents Assn. took on that controversial subject in a panel session televised from the group's education meeting March 28. The four-man panel—on which industrial pro's and con's as well as labor union and consumer points of view were represented—brought out the fact that Boeing was one of the world's top exporters of aerospace products last year with 52 jet transports worth about \$250-million delivered to foreign customers.

Two panelists emphasized that local discrimination against foreign suppliers might react against Boeing, whose position always has been that other countries can't buy airplanes here if they are barred from our markets.

Not brought out in the discussion was the point that Boeing's foreign purchases are relatively limited. The company has some Japanese and Swiss special-purpose shop equipment, but all materials and equipment that go into Boeing planes are domestically produced.

Allis-Chalmers combines fend off corrosion . . .



## GUARDED BY GALVANIZED STEEL

When you see a big Allis-Chalmers combine like this cutting grain on the farmlands of America you can be sure that galvanized steel has been used in its construction.

Reasons? First, galvanized steel provides excellent weather protection and low maintenance cost. Neither dew nor drizzle nor drenching rain will find a chink in its zinc coating. That holds true regardless of the severity of the fabricating steps to which it may be subjected. And in addition to its corrosion resistance, galvanized steel has a lot of resistance to high cost: It's easy and economical to fabricate, construct and maintain.

**WEIRKOTE® IN PARTICULAR!** The galvanized steel used in these combines is National Steel's Weirkote. To the inherent strength, economy and versatility of steel, Weirkote adds enduring zinc protection via the modern continuous process. As a result, Weirkote can be worked to the very limits of the steel base without chipping or peeling. And it assures you of long-lasting protection against corrosion. It is manufactured by two National Steel Corporation divisions, Weirton Steel and Midwest Steel. Write Weirton Steel Company, Weirton, West Virginia, for further details.



**MIDWEST STEEL**  
Portage, Indiana

*divisions of*  
**NATIONAL STEEL CORPORATION**

**WEIRTON STEEL**  
Weirton, West Virginia



## Industry News in Brief

### S-W Signs 2 Firms

**Chicago** — Stewart-Warner Corp. has given Dictaphone Corp. and Western Union Telegraph Co. the right to sell and lease its Datafax electronic facsimile equipment. Under the nonexclusive arrangements made with the two companies, Dictaphone and Western Union will service the equipment they sell or lease. Stewart-Warner, itself, also will continue to market and service Datafax equipment.

### Symington-Wayne to Buy

**Salisbury, Md.** — Symington-Wayne Corp. plans to acquire Sherman-Klove Co., Chicago manufacturer of hand tools, for about \$3-million. Symington-Wayne said the move, which is subject to approval by Sherman-Klove stockholders, would enable it to enter "an industry which has demonstrated its resistance to cyclical fluctuations." Symington-Wayne manufactures gasoline pumps and allied equipment.

### Hooker Consolidates Sales

**Worcester, Mass.** — Hooker Chemical Corp. has consolidated its sales operation in the New England area by liquidating Marble-Nye Co., a jobber subsidiary. All chemical sales now will be handled through the company's regional office here. Hooker said the move should result in improved service to customers by eliminating the confusion that sometimes arose from having two separate, and to an extent competing, sales forces in the same area.

### Second Barge Planned

**Richmond, Va.** — Reynolds Metals Co., which recently developed plans for the first aluminum barge to be built in the U.S., last week reported on plans for a second and larger aluminum barge. The second barge will be built by Ingalls Shipbuilding Corp. here. It will be 100 ft. long, 50 ft. wide and 11 ft. deep. Designed for carrying sensitive liquid chemicals on the Ohio-Mississippi River systems, its capacity will be about 20% greater than a steel barge of the same draft, Reynolds said.

### Construction Started

**Los Angeles** — Reed Instrument Bearing Co., a division of SKF Industries, Inc., has begun construction of a new \$2.5-million plant here. Reed said the 35,000 sq. ft. facility, scheduled for completion in August of this year, will enable it to quadruple production. The company supplies miniature bearings to the missile, aircraft and related instrumentation fields.

### Bemis Bro. to Expand

**Houston, Tex.** — Bemis Bro. Bag Co. of St. Louis, plans to consolidate and expand its operations here by constructing a new 200,000 sq. ft. plant. The company now produces paper, textile and open-mesh bags at

two separate facilities in Houston. Ground for the new \$1.4-million building will be broken in late spring. It is anticipated that the plant will be in full operation by the end of the year.

### UAC Acquires Van Norman

**New York** — Universal American Corp., a diversified management company, has agreed to purchase controlling interest in Van Norman Industries, Inc., New Bedford, Mass. Van Norman manufactures a broad

line of industrial products, with special emphasis on the metalworking field. The line includes consumable metal cutting tools, iron and steel forgings, metal stampings, hand and machine tools, and materials handling equipment.

### Harvey Expands

**Minneapolis** — Harvey Aluminum has opened an office here to serve metal users in the north central area of the U.S. Harvey, one of the nation's six producers

of primary aluminum, is a major supplier of aluminum mill products. It also produces titanium, zirconium, and other special metals.

### Southern to Build

**Atlanta** — Southern Cement Co. will begin constructing a plant here this summer with a projected annual capacity of 1.5-million bbl. of Portland cement. The new facility will be designed so that production can be increased eventually to 3-million bbl. annually by adding a second kiln. Southern Cement is a division of American-Marietta Co.

### GE Sales Office

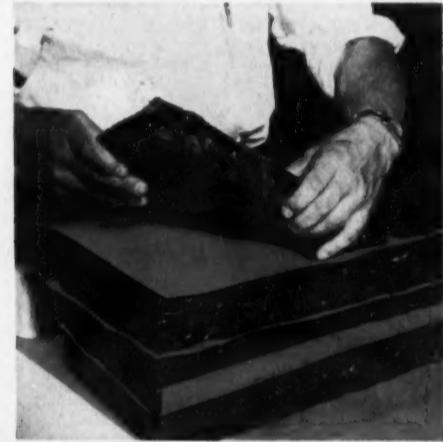
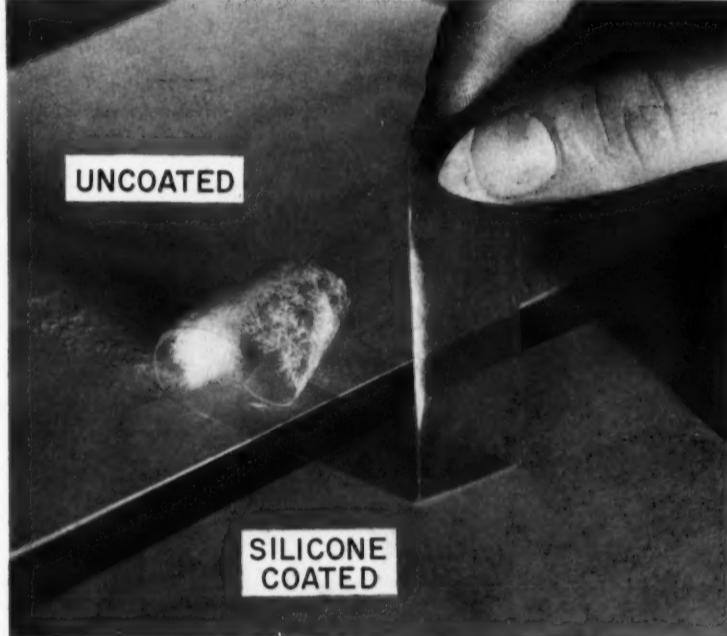
**Houston** — General Electric's Silicone Products Dept. has established its second Texas sales office and warehouse here. The Silicone Dept.'s other Texas office is located in Dallas.

### Olefins Opens Office

**Chicago** — Union Carbide's Olefins Co. division, has opened new sales offices here and in Memphis, Tenn. They are the second and third district offices established by the division this year. The other is in Cleveland.

### SILICONE NEWS from Dow Corning

# No Sticking Here!



### New Silicone Coatings for Paper End Sticking; Save Time, Money

Sticky products like asphalt, dates, and uncured rubber have always been troublesome to pack, unpack or process. But that's all in the past for people who specify new Syl-off® silicone coatings for paper.

Even the stickiest materials are easily and cleanly removed from shipping containers made with Syl-off coated paper or paperboard. And there's nothing to compare with the ease of removing Syl-off coated separators from pressure-sensitive backed items — labels, decals, wallpaper . . . backing papers peel completely free without tearing. Syl-off coatings won't transfer or migrate, either . . . which means you can use coated papers as package wraps, liners and interleaving for food products.

**WHO BENEFITS?** You do! If you buy and use sticky materials, Syl-off means faster in-plant handling and processing. You get all the material you pay for and product losses are minimized. If you ship sticky products, Syl-off helps you create the kind of happy, satisfied customers who make the difference between profit and loss. You can actually save money, too, because Syl-off brand coatings weigh less than other release coatings which means lower shipping costs.

**GETTING PERSONAL.** Are sticky products giving you or your customers trouble? Can Syl-off help? Syl-off coated papers or containers can be engineered to your special needs by experienced mills and converters. Write now for list of Approved Sources. Address Dept. 7516

For complete technical information about any silicone product, contact the Dow Corning office nearest you.



**Dow Corning CORPORATION**

MIDLAND, MICHIGAN

ATLANTA BOSTON CHICAGO CLEVELAND DALLAS LOS ANGELES NEW YORK WASHINGTON, D. C.

## 1. Who Is Using Purchasing Brain Trusts?

BASIC INDUSTRIAL GIANTS such as U.S. Steel and Monsanto Chemical Co.

AUTO MAKERS such as Ford and Chrysler.

METALWORKING FIRMS such as Eaton Mfg. Co. and Worthington Corp.

SPACE-AGE COMPANIES such as Lockheed, and Mallory Metallurgical Co.

## 2. Why Use Brain Trustees in Purchasing?

They lift the burden of detail from the busy buyer, freeing him for negotiation, finding additional sources, and value-analysis.

They give him skilled engineering help to make up for his lack of knowledge-in-depth about such things as new wonder materials and processes.

They can perform specialized functions, such as running tests, tracking down facts in laboratory and library, and solving unusual material problems.

## 3. What Jobs Can Brain Trustees Handle?

Backing up buyers with on-the-spot technical and engineering assistance.

Checking performance of purchased materials with operating managers, maintenance supervisors, and engineers in the plant.

Working with design engineers on materials procurement aspects of product design and development.

Getting information for buyers from company labs, outside engineers, and consultants.

Performing cost analyses on make-or-buy, vendor proposals, special projects.

Preparing procurement budget and purchasing reports to top management.

Keeping score on buyers' savings and over-all department performance.

Making special commodity and industry studies and market price projections.

Participating in special interdepartmental task forces on such things as scrap disposal, traffic, materials handling, and data processing.

Keeping purchasing personnel up-to-date on significant publications, articles, and books.

Preparing policy and procedures manuals.

Developing job specifications and purchasing personnel training programs.

## 4. What Is Off Limits for Brain Trustees?

Pre-empting buyer's authority to make decisions on vendors.

Taking design decisions out of the engineer's hands.

Telling operating managers what materials to buy.

Making decisions on capital equipment acquisitions.

Interfering with buyer-salesman relations.

# HOW BRAIN TRUSTERS SPAN P.A.-ENGINEERING GAPS BY PURCHASING RESEARCH

More and more companies are employing technical specialists to fill the gap between buyers, engineers, and plant operating management. Moves such as these can be a blessing to the P.A., who generally is not a trained technician in his own right and who would have to spend an inordinate amount of precious time if he tried to research every purchase. The avalanche of space-age materials and wonder products coming on the market makes this technical intelligence problem even more critical for most P.A.'s.

The size of these research groups varies widely. Chrysler's has 40 members; U.S. Steel has a department of seven. There even are one-man operations. Titles vary, too, although the most common are purchasing research director and purchasing analyst.

Who are these brain trustees? Usually they are engineers, accountants, or specialists with plant operating experience. Who they work for, what they do, and what they don't do are summarized at the left.

"We use our technical skills to provide the buyer the technical information he needs from the many U.S. Steel labs, operating divisions and other parts of the company," says Robert F. Benson, manager of the steelmaker's seven-man purchasing research department. His crew is Johnny-on-the-spot with engineering, metallurgical, accounting and economic know-how that provides the facts a buyer needs to make a top-value purchase.

Because the purchasing researcher speaks both engineer and P.A. language and reports directly to the chief purchasing executive, he can act as a valuable communications link.

"One of the problems of working with engineers," says Howard A. Williams, director of purchases at Eaton Mfg. Co., "is the fact that when he's designing a product, the engineer looks on the purchasing agent as a cost-cutting creep. And the P.A., unless he's armed with his own engineering information, can only take the engineer's word for it when he is told a new product must be produced from high-grade alloys."

Benson also stresses this communications link; he says the purchasing researcher must offer help in terms that the buyer, engineer, and operating man can understand. As an example, he cites U.S. Steel's "Dollar Saving Program."

"We wanted to make the plants aware that Purchasing spends about a third of each dollar at operating cost and could help plant managers meet their savings targets," Benson says. So the department embarked on an educational program which included a 30-minute slide presentation on "More Value per Dollar," made by a Purchasing Research staff member. It was shown to meetings of all operating managers.

### Weekly Visits to Plant

Since then, an experienced methods engineer on Benson's staff visits U.S. Steel plants on a weekly rotating basis, talking to superintendents, maintenance supervisors, shop foremen, and machine operators, too. They are encouraged to talk about their difficulties with purchased materials. "At first they say, 'We have no problems,' but then they do mention things that have been bothering them," says Benson. Building confidence that purchasing research can contribute to the solution of these problems takes time, he noted, but now plants call up Purchasing to help.

For example, Purchasing Research is now working on a problem for U.S.



**U. S. STEEL RESEARCHERS AT WORK:** Buyer (r) views model of conveyor designed by Purchasing and Applied Research.



**IDEA HUNT:** Eaton Mfg. Co. researchers get suggestions from lathe operator making real axle carriers at plant in Cleveland.

Steel's Gary, Ind., works. The plant had been punching spike holes in railroad tie plates with outside-purchased punches that wore out quickly. The plant asked Purchasing Research to find a punch with a longer useful life.

Benson's group found a tool engineer in the National Tube Div. who was working on a similar problem in tube forming. Since then, meetings have been held with the engineer and the tool buyer sitting in, and tungsten carbide tips, powder metallurgy brazing, and several other ideas have been put to the test in Gary. "They are the final judge of whether it works," Benson says.

#### Other Projects for Research

Another project is underway on rubber conveyor belts used in sintering plants. They are subject to terrific wear from heat and flexing, and Purchasing Research has been assigned to see whether a better belt material can be developed. Benson notes that this problem was brought up through the Maintenance Committee, a group composed of the maintenance superintendents of each plant. They detected it as a major cost problem, and passed it on for consideration.

Purchasing Research gets into make-or-buy, too. For instance, the department was handed the problem of some special stainless steel bolts on shaker screens that cost \$7 each and had to be replaced at the rate of 100 per week. Purchasing found a vendor who would supply an equivalent bolt for \$1.50, and then located a machine shop within U. S. Steel that could make the bolt on an unused machine. In this kind of a problem, Purchasing Research draws on accounting data, buyers' sources, and operating men's experience. "Management expects Purchasing Research to take into account all the interests of other departments," says Benson.

Besides preparing dollar savings reports for the buyers and purchasing management, the department puts out a monthly letter on the business outlook, price changes, comments on major commodities, and new ideas for improving purchasing. Benson also prepares a quarterly bulletin that goes to the chief purchasing officer of each of U. S. Steel's divisions. In addition, Purchasing Research also digests magazine articles and circulates them to alert buyers to new ideas. A former newspaper editor in the group helps on these reports, as well as on slide presentations and charts.

The department prepares special economic studies, long-range projections of costs and availability of materials, and calls the buyers' attention to trends that he may have missed in his daily transactions. It also prepares



**ROLL LIFE PROJECT:** Here, researcher (left) studies results of durability test on a roll at U. S. Steel Corp.'s Homestead Works.



**SWINGING INTO ACTION:** Back in the office, the brain trust studies suggestion as first step in translating idea into reality.

a standard trade practice manual that provides a ready reference on packaging practices, quantity and trade discounts. And the group collects information on scrap and salvage items, disseminating it to those who might be able to put the surplus material to use. They also have contributed to the department training and policy manual.

This varied diet of tasks requires a staff with varied skills. Besides the methods engineer and editor, Benson can call on men with backgrounds in accounting and cost control, construction, ore buying, refractories, and inventory control. "We want people who can do a variety of work," Benson says. "They are hard to find, and around here you have to be someone who likes to do a lot of things at once."

At Eaton Mfg. Co., Purchasing Research gets into a wide range of technical problems, both because of its engineering know-how and because Eaton's director of purchases, Williams, views the function as an excellent way to train potential P.A.'s and engineers. Eaton's staff includes foundry engineers, mechanical engineers, packaging specialists, and industrial engineers.

#### Impressive Savings Realized

Each purchasing research group ranges from three to five men, depending on how many are assigned to work with manager R. F. Fitzgerald. Many times buyers and divisional P.A.'s have been assigned to the staff in order to make them familiar with its function. This not only trains them in the research approach, Williams says, but develops a willingness to call on Purchasing Research when they have a problem later on. And drawing from the Purchasing Research staff when a division has a problem has the effect of spreading the gospel throughout the company's 24 divisions and subsidiaries.

Eaton's score has been impressive. The company estimates that purchasing research activities cost about \$50,000 per year, but the group completed projects in 1959 that had audited savings of \$365,000; and, when the 1960 figures are in, the total for that year should be about \$600,000.

For example, a joint program on the cold extrusion of gears worked out with a supplier saved \$100,000. And a multidepartment study saved \$8,000 to \$10,000 a year on trash disposal simply by selling the trash as scrap and waste paper or burning it in the company's own incinerator instead

**(Continued on page 27)**

## This Changing Purchasing Profession

**Bryon K. Posson** has joined **Delcon Corp.**, Palo Alto, Calif., as purchasing agent.

**George H. Toler** has taken the post of director of the purchasing and issuance department, **Jewish Hospital**, Cincinnati. He had been purchasing director of the Owens-Corning Fiberglas Corp., Toledo.

**Charles J. Graham**, director purchases at the Atlanta plant of **Owens-Illinois Glass Co.'s Glass Container Div.**, has been made administrative manager of the firm's new plant at New Orleans, La.

**James E. Young** was advanced from assistant purchasing agent to purchasing agent, Churubusco, Ind., Works of the **J. I. Case Co.**

**George A. Garrison**, manager of **Norton Co.'s** West Coast plant, Santa Clara, has been made purchasing agent at the firm's headquarters in Worcester, Mass.



J. E. YOUNG G. A. GARRISON

**John B. Concklin** has been promoted to assistant manager of purchases for **Congoleum-Nairn, Inc.**, Kearny, N. J. He had been plant manager of the firm's Marcus Hook, Pa., plant.

**E. Frank Morgan, Jr.**, former Cincinnati area manager for Borg-Warner International Corp., has joined **Limbach Co.** as purchasing manager of its Cincinnati mechanical plant.



J. B. CONCKLIN E. F. MORGAN, JR.

**Joseph S. Turner**, director of purchases at **LFM Mfg. Co., Inc.**, Atchison, Kan., was appointed manager, production control and purchasing.

**Thomas B. Jacob**, former purchasing director at the Detroit headquarters of **Cadillac Plastic & Chemical Co.**, has been named manager of the firm's new Toledo warehouse.

**Malcolm MacLachlan** was promoted from manager, Methods and Research Dept., to purchasing agent at **Dun & Bradstreet, Inc.**, New York. He succeeds **Gordon Aubrecht**, who becomes district manager in the firm's Chicago office.

### Obituaries

**Vernon L. Venman**, 70, former purchasing director for

**Detroit Bank & Trust Co.**, Detroit, died March 15.

**Albert I. Field**, 81, former purchasing agent for **Simonds Saw & Steel Co.**, Boston, died March 20. Field retired April, 1949, after 47 years with the firm.

**Leo H. Kremling**, 43, a purchasing agent for **Boeing Airplane Co.**, Seattle, died March 22.

**William S. Hammel** has moved up to sales manager, **Axle Div., Eaton Mfg. Co.**, Cleveland.

**Lee Epley** was elevated to director of advertising and sales promotion, **Airtemp Div., Chrysler Corp.**, Dayton, Ohio.

**Robert M. Miller** has been advanced to assistant sales manager, **Machine Tool Div., DeVlieg Machine Co.**, Royal Oak, Mich.

**Robert E. Finnman** has been

elected vice-president, sales, steel pipe division, **Valley Mfg. Co., Omaha, Neb.**

**R. Bruce Baptie** has been promoted to sales manager, **Carwin Co.**, North Haven, Conn.

**Thomas A. Burton** has been assigned the post of sales manager, **Air Conveying Div., Flo-Tronics, Inc.**, Minneapolis, Minn.

**Robert E. Alderman** has joined **Potentiometer Div., Day-**

**strom, Inc.**, Archbald, Pa., as western regional sales manager. He was formerly with **Singer Military Products, Inc.**

**P. J. Stefik, Jr.**, was elevated to district sales manager, **Union Carbide Metals Co.**, Portland, Ore.

**Elliot M. Richman** has been appointed supervisor of original equipment manufacturer sales, **Resale Sales Dept., Marketing Div., Worthington Corp.**, Harrison, N. J.

## In the World of Sales

### How this new team of IBM Supplies



IBM SUPPLIES SPECIALIST—uniquely trained to assist you in solving supplies problems promptly, efficiently and to your best advantage.



TROUBLE SHOOTERS AT WORK: P.A., buyer confer with metallurgist and analyst on gear specifications.



VITAL CLUE: Micrograph puts buyer, engineer, and researcher on track of cause of blast furnace pipe crack.

## Brain Trusters Help Span the Gap Between Purchasing, Engineering

(Continued from page 25)  
of paying a contract price to have it hauled away.

Williams says Purchasing Research had some real "doddy-brooks" with engineering when the staff was first set up about six years ago. But he feels now that the ability to talk in the engineers' language and think in engineering terms has earned the staff the respect of the engineering department.

At Monsanto Chemical Co.'s

central purchasing office in St. Louis, top chemical research advice is on tap in the person of Dr. Allan D. Gott, who works directly with J. R. Sayers, assistant director of Monsanto's Purchasing and Traffic Dept.

### New Materials

Dr. Gott supervises the purchase of raw materials for departments engaged in research and development. He ferrets out technical information from vendors, and arranges meetings between Monsanto researchers, engineers, and vendor technical personnel.

One of the big jobs in chemical purchasing is to have men with the background to keep up with new chemicals that can fit into future production plans. In this capacity, Dr. Gott attends up to a dozen meetings a month in which new materials with applications potentials are discussed.

### Buyers Do Research

At Mallory Metallurgical Co., Indianapolis, the emphasis is on having the buyers do purchasing research in addition to their regular duties. According to Director of Purchases W. J. Topmiller, buyers do research for engineers on new alloys that might be used in the electrical contacts the company makes for aircraft, automotive and missile industries, and powder metallurgy products. Mallory is constantly looking for nonferrous metals which make possible the development of new alloys for its products, and over half of its engineering time is spent on testing such alloys.

Lockheed calls its group Procurement Engineering Liaison. The liaison function comes in when engineering personnel seek help from vendor technical personnel. Procurement Engineering Liaison sets up the meetings, keeps up to date on the "state of the art" by evaluating both vendors and new products, and maintains reference files on materials and processes. The group goes to work prior to the buying stage to prepare both Engineering and Purchasing for problems in materials, subcontracts, and services.

### 40 Researchers at Chrysler

Chrysler's department is one of the largest, numbering some 40 men who concentrate both on the technical aspects of buying and detailed cost analyses. The buyer can draw on their knowledge of manufacturing and engineering, and also get comparative cost estimates for use in negotiating and make-or-buy decisions. The group keeps records on the key parts system which focuses attention on the 15% of Chrysler parts that make up 85% of total purchasing volume.

Purchasing Research also performs special studies for Chrysler's director of purchases, William Coffin, and keeps purchasing management informed with clippings of magazine articles that are routed around the staff. The group also conducts training sessions in conjunction with Chrysler's personnel department.



DESIGN ASSISTANCE—you can profit by the ideas and experience of others who have successfully solved problems similar to yours.



IMMEDIATE DELIVERY—control panels delivered "off-the-shelf" to meet your emergency data processing needs.

LONGER TAPE LIFE—assured by the unique IBM quality control program for new magnetic tape, plus an exclusive retest service which increases the life of your present tape by over 50%.



**IBM** DATA PROCESSING

# Research & Development

**CHEMICAL COMPANIES** are brewing a number of new kinds of nylon for use in improved fibers and molding resins. The newest type to come out of the labs is nylon 7, a sister to nylon 5 and a cousin to nylon 66.

**Union Carbide** researchers report that nylon 7 has good fiber-forming properties and that a commercially feasible process is in the works. The company still has a fair amount of development work ahead before it can make any commercial moves. The Russians also are working on a commercial process, but no one knows how far along they are.

Nylon 7's properties look good even at this stage of the game. It has a higher melting point than nylon 6 (225°C vs. 214°C) and a higher sticking temperature (220°C vs. 208°C). Moisture regain, a desirable property in textile fibers but a problem in molded parts, is lower than in nylon 6.

**Other new nylons in the works include nylon 4 (at General Aniline and Minnesota Mining & Mfg.), nylon 8 (in Germany), and nylon 11 (produced as Rilsan in Europe).** Carbide figures show that both 8 and 11 have lower melting points, sticking temperatures, and moisture regains than nylon 7. No specifications are available on nylon 4, which is still in the early stages of development.

**Nylons based on totally new polymer chains (rather than on different length units) are also under development.** California Chemical, du Pont, and Monsanto Canada all are working on nylon polymer chains that incorporate benzene rings. One aim of this work: higher temperature plastics for use up to 600°F or so.

And older nylons can take on interesting new uses, with the proper guidance. Time, Inc., has been working for several years on a commercial printing plate based on a conventional nylon interpolymer.

• • •

**Next major lighting development will be "square" fluorescent bulbs.** Prototypes have been demonstrated by both General Electric and Westinghouse, and both companies are now at work overcoming some tricky production problems. Units will be aimed at lighting applications previously barred to fluorescents because of space limitations.

• • •

**Copper Products Development Assn.** has pledged almost \$200,000 to sponsor new research projects to develop new or improved uses for copper. Two of the studies—one to come up with a tarnish-resistant copper by metallurgical surface treatment, the other to find increased use for copper as an alloying element in cast iron—will be conducted by Battelle Institute.

**Quantum, Inc., will study copper compounds as additives for gasoline, while Dynatech Corp. will try to develop a new form of copper that is thermally conductive, but electrically insulating.** The fifth project, by Chase Copper & Brass, is for evaluation of clear plastics for protecting copper base alloys.

• • •

**New quenching oil developed by Shell** will eliminate many finishing operations because it doesn't stain or discolor metal as it cools. Voluta 921, developed by Shell's Wood River Illinois research lab, combines rapid quenching with maximum brightness retention.

• • •

**An experimental punched card memory unit developed by IBM** could become an economical substitute for magnetic core and drum units in certain applications. The new unit uses a punched card with an aluminum foil core. The card is inserted between pairs of printed circuit boards, which convert the holes in the card into signals ready for computer use.

One of the circuit boards has horizontal parallel conductors, the other vertical rows. Crossings between conductors correspond to the 960 possible positions in the card, which serves as a semipermanent memory and may easily be changed or updated.

• • •

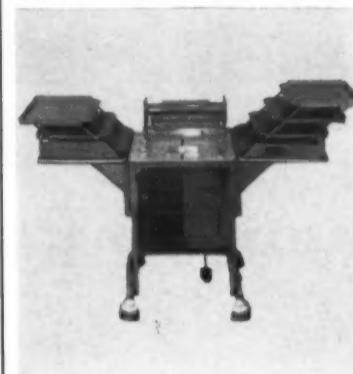
**Tough plastic under development at Olin Mathieson** is a blend of two resins used in ordinary plastic—an epoxy-omamid thermosetting resin and a chlorinated thermoplastic. Olin claims that a  $\frac{5}{8}$ -in. sheet will stop a 30-caliber bullet fired at 5 ft. to 20 ft. away. Sharpened sticks on the plastic can be driven through sheet metal, the company states.

Although the plastic is still some distance from commercial usage, applications under consideration include: body armor for soldiers, bodies for cars and trucks, fittings for cast pipe, protection for storage tanks, and soles for shoes.

• • •

**Time might not be too far distant when you will "dial" a phone number by pressing a combination of numbers, instead of turning a dial.** General Electric has a device under development that uses 10 buttons in place of conventional circular setup.

Here's your weekly guide to . . .



## Binding Machine

### Makes Snap-Out Forms

Machine for making carbon, interleaved, snap-out forms takes only 4 sq. ft. of floor space with its collating shelves folded for storage. It requires minimum setup time and is designed to permit an average of 2,000 pickups per hr. The machine makes forms in sizes up to 11 in. x 14 in.

Price: \$495. Delivery: 30 days.

Farrington Business Machines Corp., Needham Heights 94, Mass. (PW, 4/10/61)

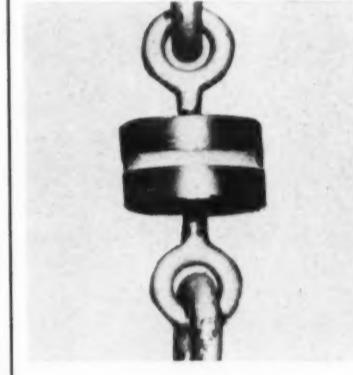


## Coffee Wagon

### Holds 55 Cups

Unit for in-plant service uses a 55-cup percolator and automatic cup dispenser, and has a solenoid dispensing valve. It can be coin or manually operated and has an automatic timer to turn the percolator on at a preset time. Cream and sugar dispensers are located on the outside of the mobile cart, which needs no water connections or drains.

Price: \$395. Delivery: immediate. Gardner Mfg. Co., Horicon, Wis. (PW, 4/10/61)



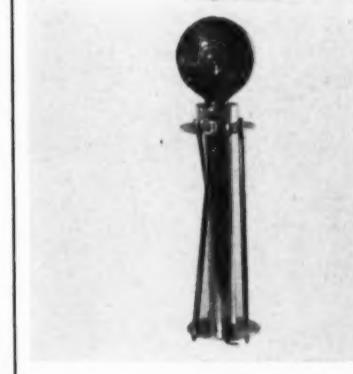
## Silicone Rubber Compound

### Used With Steel

Self-bonding compound needs no primer and establishes a bond through a direct reaction with the metal surface. After a cure of 25 hr. at 350°F, it achieves a tensile strength of 1,500 psi., a tear strength of 200 psi., and a 550% elongation. It has been used with steel, chrome steel, and stainless steel.

Price: \$5.20/lb. (in 1,000-lb. quantities). Delivery: immediate.

General Electric, Silicone Products Dept., Waterford, N. Y. (PW, 4/10/61)



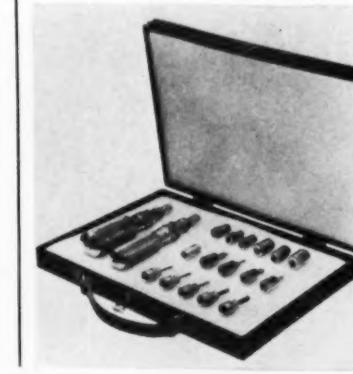
## Warning Light

### Has Collapsible Stand

Emergency device has a portable blinking light powered by flashlight batteries. The warning light is 17 in. high and has a collapsible stand which opens to form a tripod support. Open, the unit is 27 in. high. The stand is also removable, allowing for the flasher's use in traffic cones.

Price: \$24.50 (\$21.50 without stand). Delivery: immediate (after May 1).

Park Industries, Inc., 4328 Oakwood Blvd., Melvindale, Mich. (PW, 4/10/61)



## Screwdriver Set

### Includes 16 Adaptors

Tool set has two micrometer, adjustable torque screwdrivers with torque ranges from 4 in./oz. to 100 in./oz., and from 2 in./lb. to 30 in./lb. A complete set of adaptors handle regular hex nuts, socket head screws, regular screws, and phillips-type screws. Screwdrivers are available also in preset as well as adjustable models.

Price: \$95.61. Delivery: 1 wk.

R. N. Hunter Sales Co., 9851 Alburtus Ave., Santa Fe Springs, Calif. (PW, 4/10/61)

# New Products

Another PURCHASING WEEK service: Price and delivery data with each product description.



## Label Dispenser

### Delivers Pressure-Sensitive Labels

Electric or manual dispensers remove the backing paper from pressure-sensitive labels and hold them ready for application. Electric models have start and stop switches and a rheostat speed control. An automatic model starts a new row of labels when the last label in previous row has been removed.

**Price:** approx. \$30 to \$350. **Delivery:** immediate (after May 15).

**Aplicon Machines, 21877 Euclid Ave., Cleveland 17, Ohio. (PW, 4/10/61)**



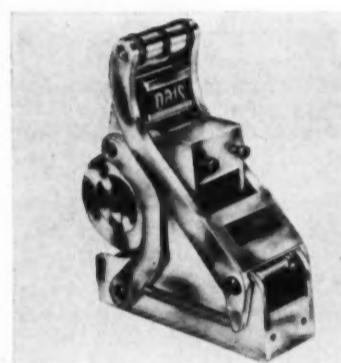
## Waste Can Lid

### Converts Empty Drums

Steel lid with two free-swinging doors converts an empty drum to a waste receptacle in seconds. Lids are available for 15-, 30-, and 55-gal. drums, with a baked green enamel finish. A complete kit for 55-gal. drums includes the lid with a burlap bag and a spray can to paint the drum.

**Price:** \$7.75 to \$14.25, and \$19.35 (kit). **Delivery:** immediate.

**General Scientific Equipment Co., Limekiln Pike & Williams Ave., Philadelphia, Pa. (PW, 4/10/61)**



## Coding Machine

### Imprints Cartons

Coder can be used on inclined or powered conveyors, on case sealers, or on other carton or case handling machines. The inking agent is suspended in a plastic base, and delivers up to about 500,000 impressions depending on type size. Changeover of type or ink roll takes about 15 sec.

**Price:** \$465. **Delivery:** immediate (after May 15).

**Thomas Engineering Co., Inc., 9257 N. Laramie Ave., Skokie, Ill. (PW, 4/10/61)**

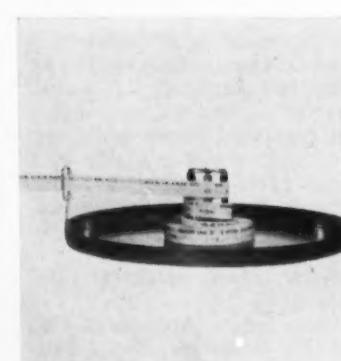


## Plastic Binding Machine

### Adjusts to Production Speeds

Electric machine has variable speed automatic cycling, permitting production rates up to three times faster than other electric models. Two control knobs adjust cycles, one for loading time and the other for the binding operation. The machine binds books in thicknesses from 3/16 in. to 2 in. and in a variety of lengths.

**Price:** \$595. **Delivery:** 10 to 14 days. **General Binding Corp., 1101 Skokie Hgwy., Northbrook, Ill. (PW, 4/10/61)**



## Unwinder

### Handles Message Tapes

Sturdily constructed and perfectly balanced unwinder uses ball bearings. Its tape guide permits message tape or perforated data processing tape to travel up or down, to right or left, without requiring special positioning of the unit for efficient delivery to equipment receiving the tape. The machine's base has a nonscratch felt covering.

**Price:** \$18.75. **Delivery:** 2 wk.

**Cycle Equipment Co., 17480 Shelburne Way, Los Gatos, Calif. (PW, 4/10/61)**

## This Week's

# Product Perspective

APRIL 10-16

**MICROFILM** is borrowing computer methods to help make a dent in the growing volumes of business paperwork. New techniques record vast amounts of data on 35-mm film—use the film for reference or making needed copies.

Three recently unveiled systems use microfilm to attack different aspects of the paperwork problem. Eastman Kodak's Dacom records computer output directly on film; FMA, Inc.'s Filesearch retrieves filmed information through a special code; and Stromberg-Carlson's High Speed Microfilm Recorder makes engineering drawings from computer output.

All three systems are expensive and much development remains, but they are definitely the forerunners of an entire family of equipment that will have a major effect on our information processing methods. Here's a rundown on what each system does:

• **Dacom** reads magnetic tape output from the computer and translates it into graphs or figures and letters. This output is combined with a format or billhead, and recorded on microfilm at a rate of 20,000 characters a second. Kodak officials feel Dacom may replace about 10% of present mechanical readout devices.

The Dacom system does its own film processing at a rapid rate, producing an original (positive) and a duplicate (negative) simultaneously. The device then uses the negative to turn out enlarged silver print copies in a quality suitable for accounts and statements. It will take roll paper up to 12 in. wide at a 100 ft./min. rate.

**Kodak** also puts out a microfilm system that stores pages of data on tiny film chips. Binary coded data photographed along with the original material serves as a rapid look-up index. Two thousand film chips are locked on a steel handling stick which, in turn, is stored in a cabinet that holds 900,000 film records. A scanner locates desired material and prints out duplicates at 300 print/hr. speeds. First Mincard installation was put in at Pentagon in 1958.

• **Filesearch** stores 32,000 standard-sized magazine pages on a single reel of microfilm. When information is desired, the machine automatically searches the film at the rate of 6,400 pages/min., making copies of the requested material.

The system is composed of a recording unit and a retrieval section. The recording camera photographs files of documents along with a description of its contents coded in the form of opaque dots (corresponding to binary terms). Requests for information are fed into the retrieval section by punched cards. The requested facts are instantaneously projected on a small screen for reference viewing. If permanent, useable records on paper are required, the machine produces a hard copy of the document.

The entire retrieval unit is integrated into a single 71x55x50 in. cabinet. FMA claims that no special skill is needed to run the unit. Price of the system is "slightly over \$100,000."

• **High Speed Microfilm Recorder** uses information from a computer to make complex engineering drawings in less than 1/2 second. The recorder uses a mathematical code supplied by the computer to draw lines, curves, symbols, and dimensions with electron beams. It will produce drawings of any view or cross section of the part in three dimensions.

The microfilm recorder originally was designed as a high-speed print-out for computer centers—the engineering drawing application is actually a modification of the original equipment. Impulses from the computer magnetic tape pass through the printer's electronic circuitry and appear as TV-like displays on a Charactron display tube. The tube display is copied directly on microfilm. An accessory unit permits automatic film processing and projection on a 2x2 ft. screen within eight seconds.

First applications are scheduled for making drawings from tape prepared for numerical machine tool control. The same tape can be used for both control and drawings—eliminating the necessity of making a sample part to check dimensions. Equipment cost is high, (purchase price, \$250,000; rent, \$5,000 month) but indications are that cost can be justified if unit is used for both computer print-out and engineering drawings. Convair Astronautics is getting first installation.



FILESEARCH automatically scans material at 6400 page/minute rate—displays requested data.

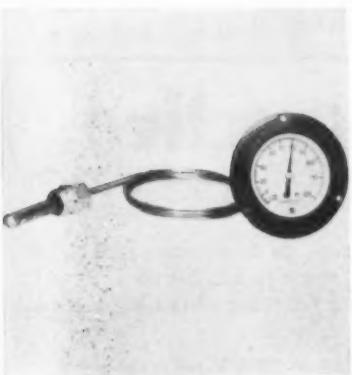
### Equipment Thermometer

#### Gives Remote Readings

Vapor tension actuated thermometers serve as remote temperature indicators with equipment such as engines, air ducts, and temperature operated valves. Ten standard dial ranges cover from -20 F to +450 F. They are normally center back and panel mounted but may be custom designed for individual applications.

**Price:** approx. \$20. **Delivery:** immediate to 10 wk.

**U. S. Gauge Div., American Machine & Metals, Inc., Sellersville, Pa. (PW, 4/10/61)**



### Drum Handler

#### Attaches to Fork Lift

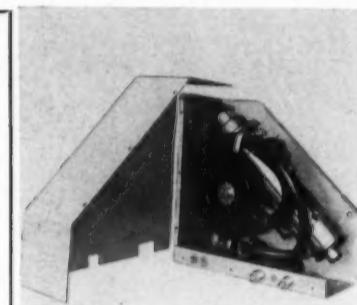
Unit attaches to fork lift truck in seconds to handle 55-gal. steel drums with open tops. A drum support plate at the base of the attachment automatically activates a gripping jaw which seizes the drum at the rim. This remains locked until the drum is set down. Capacity of the unit is 2,000 lb.

**Price:** \$350. **Delivery:** 10 days.

**Little Giant Products, Inc., 1530-50 N. E. Adams St., Peoria, Ill. (PW, 4/10/61)**



**These are the hands of a white-collar girl**  
dried with a Fort Howard towel. Fort Howard is a major supplier to business washrooms where employee satisfaction is a part of every well-run firm.



### Engine Preheater

#### Permits Quick Starts

Engine preheater automatically maintains coolant temperature between 140 F and 160 F to permit quick cold weather starting of gasoline or diesel engines. Heating capacity is 50,000 Btu/hr. The unit comes on a bracket for mounting in protected areas, or in a box for installation in exposed areas.

**Price:** \$179.75 (on bracket) and \$199.75. **Delivery:** immediate.

**Stewart-Warner Corp., South Wind Div., 1514 Drover St., Indianapolis 7, Ind. (PW, 4/10/61)**



### Resuscitator

#### Eliminates Direct Contact

Resuscitator, which eliminates direct contact in mouth-to-mouth emergency breathing, is easily mounted on the walls of industrial plants or public buildings. Another model is available in a compact case for emergency kits. The unit consists of mouthpiece, breathing tube, one-way valve, and face mask.

**Price:** \$5.98. **Delivery:** immediate.

**Mine Safety Appliances Co., 230 N. Braddock Ave., Pittsburgh 8, Pa. (PW, 4/10/61)**

## Buy Dry Hands - At A Modest Cost



Dry your soaking-wet hands with a Fort Howard towel. The fast, pleasant drying power stands out... and the low cost stands out too.

Important savings are possible because Fort Howard paper towels come in many grades, folds, and packs enabling you to choose the one most precisely adapted to your requirements. For more information, consult your Fort Howard distributor.

AMERICA'S MOST USED PAPER PRODUCTS AWAY FROM HOME



# Fort Howard Paper Company

Green Bay, Wisconsin • Sales Offices in New York, Chicago, Los Angeles

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# Product News in Brief

## New Subsidiary Formed

**Cleveland**—W. S. Tyler and Fort Wayne Metals, Inc., have formed a joint subsidiary, Tyler Wayne Research Corp., for marketing and licensing a new process for making stainless steel wire.

The wire is said to combine the strength and corrosion resistance of stainless steel with the flexibility and resistance to fatigue of nonferrous metals.

W. S. Tyler already has used the process for producing stainless steel wire cloth for Fourdrinier paper making machines. In this application, Tyler said the stainless steel wire lasts from three to eight times as long as conventional wire.

The two companies said the new wire should have many uses in other industries, particularly in the aircraft, missile, and marine fields.

## CCA to Market New Line

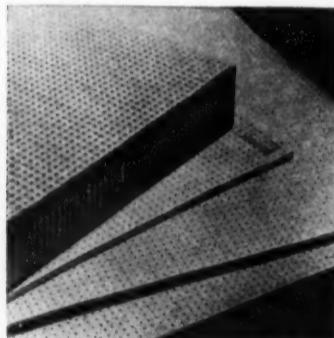
**Chicago**—Container Corp. of America soon will begin production of protective inner linings of expanded polystyrene for use in the packaging of fragile goods.

The company will process the polystyrene at the corrugated shipping container plant of its Mengel Div., Louisville. A new Mengel sales office is being opened in Evansville, Ind., to handle sales in western Kentucky and southern Indiana.

## Rubatex Makes New Foam

**Amsterdam**—Rubatex Weesp is producing foam rubber with long, narrow channels to overcome irregularities resulting from large pore sizes.

The narrow channels are used in all foam rubber thicknesses produced by the company for



bedding, furniture upholstering, and other applications. A rough surface texture on the foam resists slippage of covering fabrics.

The Euromatic Co., a Rubatex subsidiary, developed the machine which produces up to six tons of dry foam in 24 hr.

## J-M Offers New Package

**New York**—Johns-Manville Corp. is packaging Dutch Brand plastic electric tape in a new lucite dispenser designed to improve the characteristics of both the tape and the splice.

The dispenser permits one-hand cutting of the tape with a "puncture-and-slice" action which offers these advantages:

- No stretching of the tape during cutting, eliminating the danger of loss of dielectric strength and adhesion often

caused by stretching or breaking of the tape.

- Clean, straight cuts to permit tighter and neater splices.

- One-hand taping in awkward locations or where complex assemblies must be held with the other hand.

Dispensers are packed 12 to a carton with each containing 66 ft. of  $\frac{3}{4}$ -in. wide, 7-mil. thick tape. They are reusable, the company says, but are so inexpensive that they can be considered disposable.

## Eriez Unveils Feeder

**Erie, Pa.**—Eriez Mfg. Co. is producing a volumetric feeder for precisely measured delivery of dry bulk chemical materials. The one-piece machines are priced from \$300.

The units are designed for small batch operations, packaging and bagging jobs, weigh scale feeding, and for continuous or intermittent additive feeding. They have a dual vibratory action (feeder and hopper), precise

controls, and instant starting and stopping, which make possible the measured discharge rates for moving material from storage bin to hopper.

## Koppers Offers 14 Dyes

**New York**—The Chemical and Dyestuffs Div. of Koppers Co., Inc., has brought out a range of 14 bright color dyes designed for polyester fibers. They are said to offer 10% to 50% savings over

dye combinations now in use.

The dyes, available in insoluble powder and liquid forms, have a high fastness to light, washing, crocking, sublimation, and perspiration. They may be used with all conventional dyeing techniques and for roller and screen printing.

The dyes have little affinity for cellulosic fibers and have varying intensities, depending on the color for cotton and wool, permitting cross dyeing techniques in blends.



## SUPER SAFETY

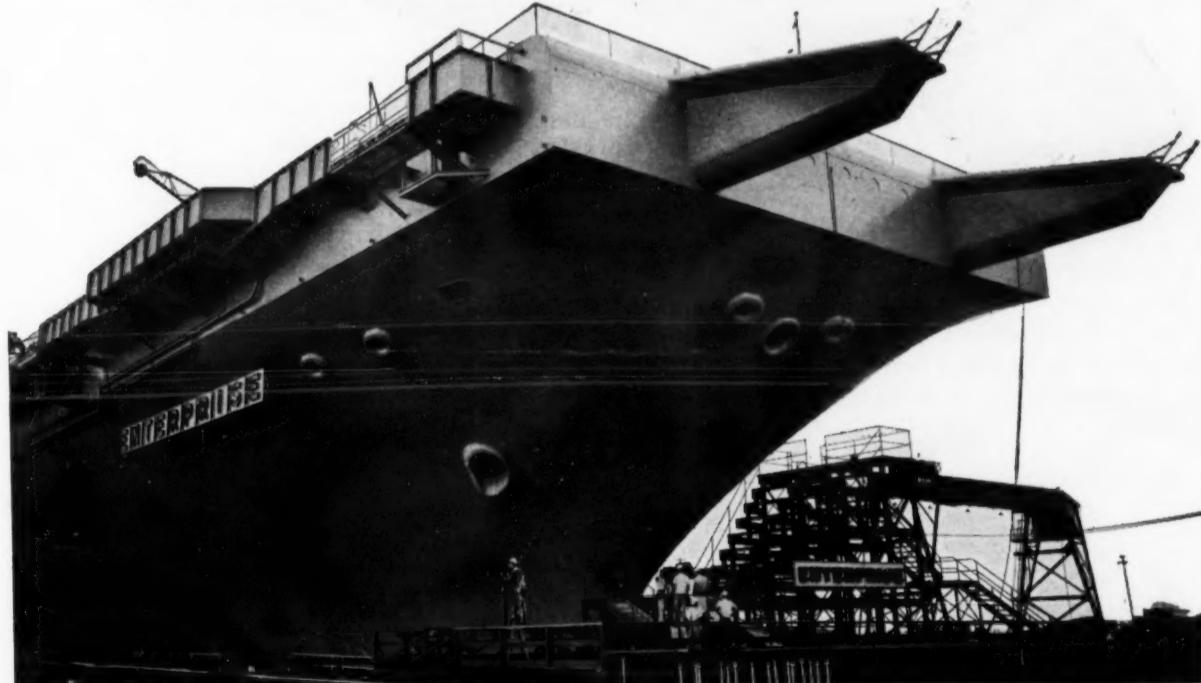
... for super carrier Enterprise.

### A.W. Super Diamond floor plate

keeps footing sure on first nuclear carrier

Safety underfoot on the U.S.S. Enterprise is assured by A.W. Super Diamond floor plate. Built by Newport News Shipbuilding and Dry Dock Co., the Enterprise is truly a super-ship—the world's first atom-powered aircraft carrier... the largest ship afloat... with the most powerful nuclear plant on land or sea... bringing together the greatest amount of electrical and electronic gear ever assembled in such a compact space. And super-safety matched to this super-ship concept is provided by A.W. Super Diamond underfoot!

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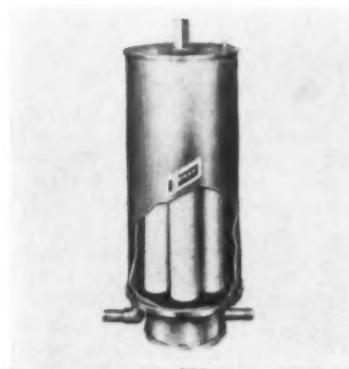
### X-Ray Unit

#### For Variety of Materials

Unit produces fluoroscopic images and X-ray films of internal parts of transistors, condensers, etc. It inspects a variety of materials such as wood, paper, leather, rubber, plastic, aluminum, copper, etc. A second model has a control to vary the penetration for lighter subject matter.

**Price:** \$805 and \$980 (with variable control). **Delivery:** immediate.

**Universal X-Ray Products, Inc., 1140 N. Western Ave., Chicago 22, Ill. (PW, 4/10/61)**



### Filter Chamber

#### Takes Pressures to 100 Psi.

In-line unit filters light or heavy fluids to microscopic clarity at pressures to 100 psi. The stainless steel (Type 316) chambers, available in 1-gpm. to 100-gpm. capacities, have high corrosion resistance. All parts are machined from wrought metal. One set of cotton filter tubes is furnished with each unit.

**Price:** \$67 to \$495. **Delivery:** 1 to 2 wk. **Sethco Mfg. Co., 2284 Babylon Tpke., Merrick, N. Y. (PW, 4/10/61)**



Yes, we confess, occasionally we do. But, you can be sure, it doesn't happen often. Proof? During the past 25 years, less than *one* out of every 10,000 Ace Pilot Staplers manufactured has needed repairs. Not quite goof-proof yet, but give us time. You can see and try the amazing Ace Pilot at your Ace dealer. Do it today.



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**ACE** FASTENER CORPORATION  
3415 North Ashland Ave., Chicago 13, Ill.



### Tape Dispenser

#### Holds up to 2-in. Widths

Portable cast aluminum dispenser applies, wipes down, and cuts strapping tape in one operation. The balanced unit dispenses tapes up to 2 in. wide and up to 120 yd. long. After the desired length is dispensed and cut, a free end remains for a quick start in the next application.

**Price:** \$29.75. **Delivery:** immediate. **Permacel, New Brunswick, N. J. (PW, 4/10/61)**



### Vacation Chart

#### Accommodates 24 Names

Lined chart for vacation schedules simplifies listing of names and dates for forwarding to department heads or for posting on the bulletin board. The 11-in. x 8½-in. form accommodates 24 names for the period of May through September. An added column accommodates notations for dates extending past September.

**Price:** \$1.50/doz. **Delivery:** immediate.

**The Idea Co., Box 178, Rye, N. Y. (PW, 4/10/61)**

## IBM Introduces Quality, Process Control System

White Plains, N.Y.—International Business Machines Corp. has entered the industrial controls field with a system whose applications will include quality control, industrial process study, and process optimization.

First piece of hardware to appear, the 1710, is designed for use where frequent sampling and interpretation of industrial manufacturing data are required. The machine incorporates the 1711 data converter and the solid-state 1620 data processing system and will rent for from \$2,600 to \$3,300 a month; purchase prices range from \$111,000 to \$135,000. First deliveries will be made in the fourth quarter of this year.

As a control system, the 1710 can scan up to 300 instruments at regularly timed intervals, providing instructions for adjustment of control settings. It also can make calculations for building a mathematical model or describing a process.

The 1710 will analyze and record the final testing of items—from transistors to refrigerators—automatically inspecting each individual unit. Where flaws exist in units or groups of units, it can indicate where corrections in manufacturing steps are needed.

A 1620 system already in use can be converted in the field to a 1710 system and may be used independently of the control system to perform engineering and technical business processing jobs.

## New Device Harnesses Ultrasonic Sound Waves To Bond Tough Plastics

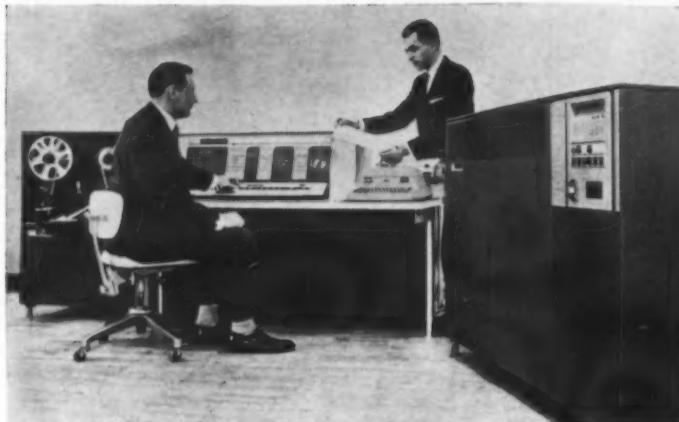
Cranford, N.J.—A new plastics-bonding device, called Sonoseal, employs ultrasonic sound waves to "weld" together tough polyester plastics and other materials. Potential manufacturing uses for the sealer, developed by International Ultrasonics, Inc., include: plastic outerwear, car seat covers, food and drug packaging, audio and video tape splicing.

Heat and dielectric sealing had proved unsatisfactory for the new, tough plastics since these methods weaken the plastics' molecular structures. Sonoseal doesn't affect strength, according to the maker.

The Sonoseal console costs \$2,450, is about the size of a sewing machine. An unmounted ultrasonic generator and welding head combination is available for \$980. International will custom-build a unit to fit unusual customer needs. First year production of console models is set at 200.

International claims the Sonoseal is safe and simple to operate. Material feed-rate may be controlled by foot pedal up to 600 inches per minute.

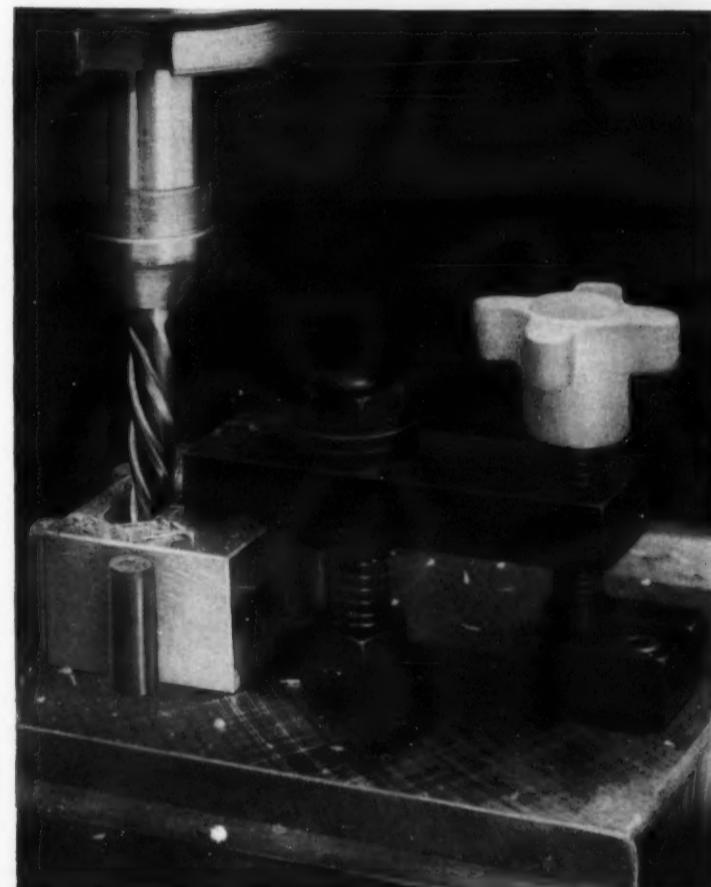
Sonoseal transforms electric energy (at 100 w. power) through a transducer into ultrasonic vibrations which are applied directly to the materials through a welding tip to effect a strong molecular bond.



IBM'S INDUSTRIAL CONTROL ENTRY: Applications of the 1710 are to include process study, quality control, and process optimization.

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Bushing Sales Division

**EX-CELL-O**  
CORPORATION  
DETROIT 32, MICHIGAN

## Ampex Designs TV Tape Recorder For Closed-Circuit Use in Industry

Redwood City, Calif.—Ampex Corp. is manufacturing a television tape recorder for industrial, closed-circuit applications. Base price is \$20,400.

The unit's single-head design (rather than the four-head technique required for broadcasting systems) reduces the recorder's electronic complex but is said to still provide picture quality equal to the original. Not much training or technical knowledge is required to operate it.

The recorder uses 7½-in./sec. tape on 12½-in. reels which record a full two hours. Source material can be live, film, slides, incoming broadcasts, or the tape of another identical unit.

The recorder weighs about 500 lb. and is contained in a cabinet 24 in. deep, 56 in. high, and 42 in. wide. The unit operates from 117 v. nominal ac. 60 cycle at 15 amp., and is available also in a 220-v., 50-cycle version.

## Purchasing Week Definition

### Terminology of Dielectrics

**Dielectric**—A material with poor electrical conductivity. Used to separate two conductors where a difference of electrical potential can exist.

**Dielectric Constant**—The measure of a material's ability to store charge. It is the ratio of a condenser made with a dielectric of a particular material as compared with the capacity of the same condenser in which air is the dielectric.

**Dielectric Strength**—A measure of the insulating material's ability, per unit of thickness, to withstand the

application of voltage across its surfaces without rupture. It is usually expressed in volts per mil of thickness.

**Dielectric Loss**—The power which is dissipated in a dielectric when an alternating electric field is applied, producing a molecular motion which is opposed by molecular friction.

**Dielectric Breakdown**—A sudden sharp increase that is produced in the flow of electric current through a crystal when the applied electric field exceeds a critical value. (PW, 4/10/61)



### Signal Bell

#### Offers Wide Selection

Signal bell in indoor and outdoor models is available in 6-, 12-, 24-, 48-, 110-, and 220-v. Both models come with 6-, 8-, and 10-in. bell shells (outdoor model also has a 4-in. shell). Single stroke bells are available for ac. or dc., and vibrating bells for ac. only. Housings are of cast metal.

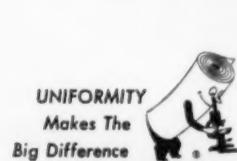
**Price:** \$5.70 to \$18.20. **Delivery:** immediate.

**Wheelock Signals, Inc., 273 Branchport Ave., Long Branch, N.J. (PW, 4/10/61)**



**WEIGHT-BEARING WAYS**—The Ingersoll Milling Machine Company, one of the largest builders of specially designed machine tools, are particularly well known for their milling and boring machines. These machines are built in a range of sizes up to mammoth proportions. The phenolic laminated plastic ways shown above are used at the bottom of machine tables to prevent scoring of metal-bearing surfaces under their heavy loads. The plastic ways also reduce fitting time. Some of these machines have a capacity for carrying upwards of two hundred tons on the table in addition to the weight of the table. The laminated plastic ways were supplied by the Panelyte Division of St. Regis Paper Company and made with Mount Vernon Duck.

This is another example of how fabrics made by Mount Vernon Mills, Inc. and the industries they serve, are serving America. Mount Vernon engineers and its laboratory facilities are available to help you in the development of any new fabric or in the application of those already available.



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A LEADER IN INDUSTRIAL TEXTILES



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**MOUNT VERNON MILLS, INC. PRODUCES A WIDE RANGE OF FABRICS IN THESE CATEGORIES:** Army duck, ounce duck, wide duck, drills, twills, osnaburgs and sateens • Fabrics used by the canvas goods manufacturing industry • Hose duck, belt duck, chafer fabrics and other special fabrics for the rubber industry • Laminating fabrics and special constructions for the plastics industry • Ironing machine aprons and cover cloths for the laundry industry • Special fabrics for the coating industry • Standard constructions and specialties for the shoe, rug and carpet industries • Dryer felts for paper making, aprons for harvesting machines • Mop yarns and drapery fabrics • Work clothing fabrics for industry • Fabrics for U.S. Army and Navy • Specification fabrics for industry generally.



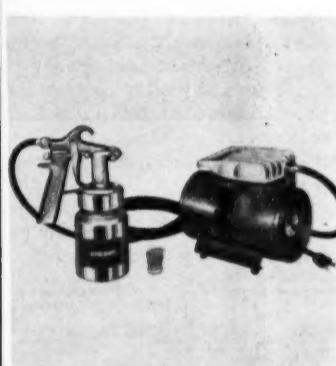
### Air Gun

#### Has Nonslip Pistol

Aluminum air gun, with non-slip pistol grip, has a range of uses including fast drying, clearing work tables, and removing dirt from dies. Its trigger action meters the air flow from a whisper to full blast. The nozzle is interchangeable with other fittings and a 1/4-in. female NPT inlet accepts standard airline couplings.

**Price:** \$3.20. **Delivery:** immediate.

**A. Schrader's Son, 470 Vanderbilt Ave., Brooklyn, N.Y. (PW, 4/10/61)**



### Paint Spraying Outfit

#### Weights 11 lb.

Compact, 11-lb. outfit sprays oil base, latex base, and water soluble paints as well as enamels, lacquers, stains, and varnishes. The oil-less diaphragm type motor-compressor is enclosed in a compact aluminum housing. Operation is quiet and air displacement is about 2 cu. ft. per min.

**Price:** \$34.95. **Delivery:** immediate.

**Thomas Industries, Inc., Sprayit Div., Louisville, Ky. (PW, 4/3/61)**

# Your 1961 THOMAS REGISTER Sir!

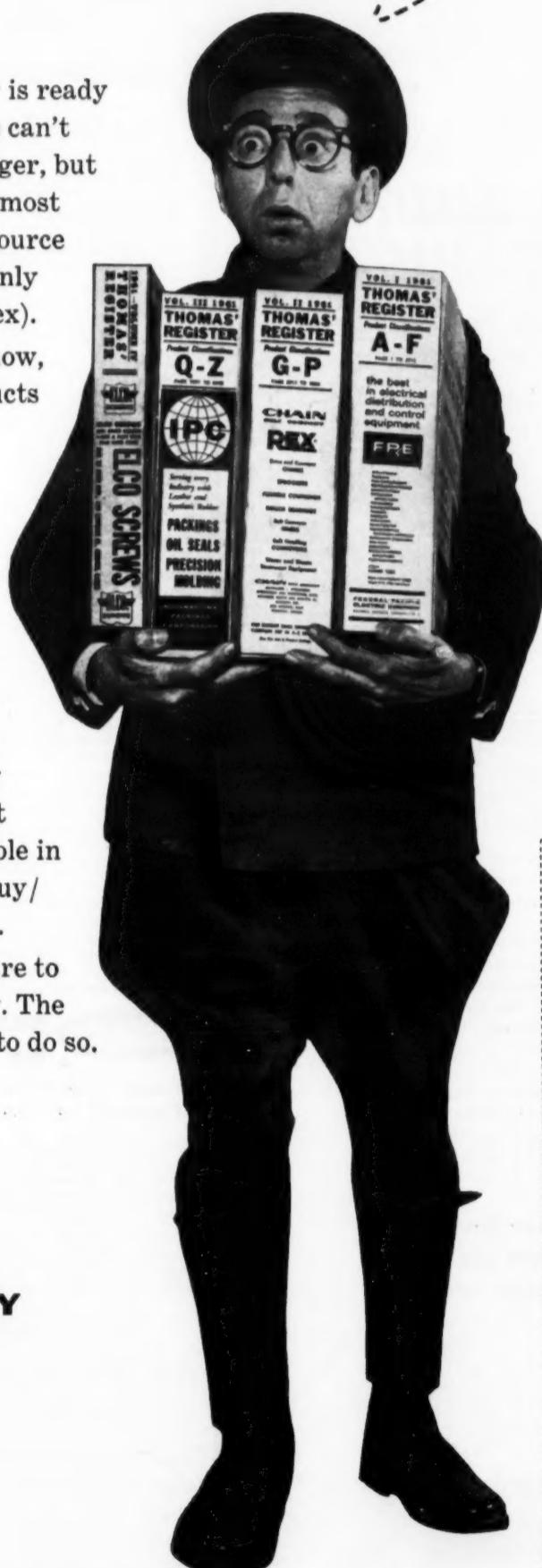
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# Meetings You May Want to Attend...

## Previously Listed

### APRIL

American Management Association—National Packaging Exposition, McCormick Place, Chicago, April 10-13.

American Society of Lubrication Engineers—Annual Meeting & Exhibit, Bellevue-Stratford Hotel, Philadelphia, April 11-13.

Copper & Brass Warehouse Assn.—Annual Meeting — Broadmoor Hotel — Colorado Springs, Colo. April 11-14.

Purchasing Agents Association of Indianapolis—1961 Indiana Industrial Show, Manufacturers Building, State Fairgrounds, Indianapolis, April 12-14.

Institute of Radio Engineers—Southwestern Conference & Electronics Show, Municipal Auditorium, Dallas, April 13-15.

The Second Annual Alabama Electronics Exposition—Birmingham Auditorium, 10:00 a.m.-8:00 p.m.—April 17, 18, 19.

Office Equipment Manufacturers Institute—Business Equipment Exposition, Coliseum, New York City, April 17-21.

American Welding Society—Annual Welding Exposition, Coliseum, New York City, April 18-20.

1961 Powder Metallurgy Show—Metal Powder Industries Federation, Hotel Sheraton-Cleveland, Cleveland, April 24-26.

National Screw Machine Products Assn.—National Meeting—Somerset Hotel, Boston, April 29-May 3.

### MAY

National Tank Truck Carriers—Annual Convention and Tank Truck Equipment Show, Netherland-Hilton Hotel, Cincinnati, May 1-3.

National Assn. of Educational Buyers—40th Annual Convention—Chase Park Plaza Hotel — St. Louis, Mo., May 3-5.

National Office Management International Conference & Office Exposition—Kiel Auditorium, St. Louis, May 7-11.

Material Handling Institute—Eastern States Show, Trade & Convention Center, Philadelphia, May 9-11.

Edison Electric Institute Purchasing and Stores Committee—14th annual meeting, Shamrock-Hilton Hotel, Houston, Texas, May 15-17.

Design Engineering Show—Cobo Hall, Detroit, May 22-25.

Tool Exposition and Engineering Conference—American Society of Tool and Manufacturing Engineers, Coliseum, New York, May 22-26.

American Iron and Steel Institute—Annual Meeting—Waldorf Astoria Hotel, New York City, May 24-25.

Electronic Industries Assn.—37th Annual Convention, Pick-Congress, Chicago, May 24-26.

National Society of Business Budgeting—Statler-Hilton Hotel, Dallas, May 25-26.

Canadian Association of Purchasing Agents—36th Annual Purchasing Conference and Products Display, Royal York Hotel, Toronto, May 28-31.

### JUNE

National Association of Purchasing Agents—46th Annual Convention and Inform-A-Show, Conrad Hilton Hotel, Chicago, June 4-7.

Plastics Exposition—Society of Plastics Industry, Coliseum, New York, June 5-9.

Drop Forging Assn.—Annual Meeting—Greenbrier, White Sulphur Springs, W. Virginia, June 14-17.

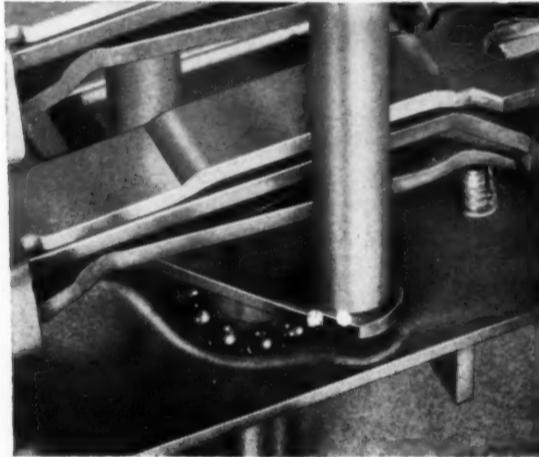
### JULY

Western Plant Maintenance and Engineering Show—Pan Pacific Auditorium—Los Angeles, July 18-20.

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343



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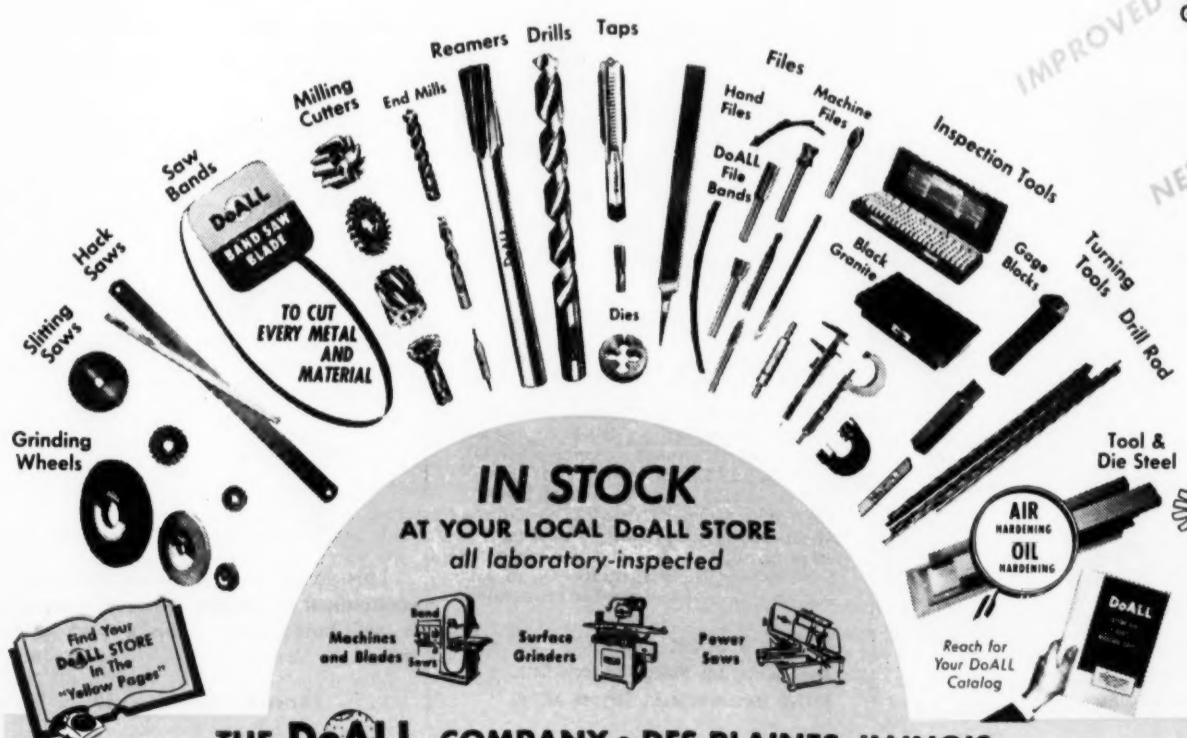
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# P/W School for Strategists

PURCHASING WEEK's School for Strategists takes up some practical problems in ordering and storing production components in the current session.

They're the sort of problems that might easily crop up in the course of your day-to-day activities, and they're presented here in the form of Operations Research games, prepared by P/W Consultant Martin L. Leibowitz.

These games can be mastered by the step-by-step procedure outline in the following sample problem.

## Sample Problem

You're a Purchasing Agent seeking bids on a certain type of material, and you know that the more bids you get, the better price you'll receive from vendors who want your order. But it costs \$200 to process each bid, so the more bids, the higher will be the processing cost. So your problem is: How many bids should you ask to effect your greatest saving?

Now here's the procedure to use in solving this problem:

(1) **What are you trying to do?** You're trying to decide how many bids you should ask for in order to effect the greatest possible saving.

(2) **What data do you have?** You know it costs you \$200 to process each bid. You know, too, that if you invite only one bid, you'll be at the vendor's mercy. But if there's competition, you'll get a better price. So amassing all the

price data you can get, you come up with these estimates of savings: \$500 if two vendors bid; \$850 if three bid; \$1,000 if four bid; \$1,200 if five bid; \$1,300 if six bid.

(3) **Arrange this data in an orderly fashion.**

Bids Solicited	Savings
1	0
2	\$500
3	\$850
4	\$1,000
5	\$1,200
6	\$1,300

(4) **Now find the variables.** They are: the number of bids, the amount of the savings, and the cost of processing. As the number of bids increases, so does the amount of money saved—and so does the cost of processing the bids.

(5) **What are your alternate courses of action?** In this case, they are the number of bids you can ask.

(6) **Now, formulate a mathematical sequence.** You've already done part of this in Step 3; what you have to do now is add two more columns—one listing the cost per bid and the other giving the net savings, i.e., Column 3 subtracted from Column 2. Like this:

Number of Bids Asked	Savings on Purchase Price	Cost of Processing	Net Saving to Firm
1	0	\$200	-\$200
2	\$500	\$400	\$100
3	\$850	\$600	\$250
4	\$1,000	\$800	\$300*
5	\$1,200	\$1,000	\$200
6	\$1,300	\$1,200	\$100

And there's your answer (starred). You should solicit four bids because that's your point of greatest net savings, \$300 (\$1,100 savings on material less the \$800 cost of processing). If you solicit fewer or more bids, the cost of processing them will eat up more of the material savings and give you a smaller net.

Now, try the two following problems on your own.

## Problem I The Storage Space Squeeze

The Collapsible Broom Co. has had to find a new storage area for two parts used in its production process—Whisks and Disks. And Elrow Driggers, the P.A. responsible for Whisk and Disk procurement, has made up a table showing the penalty costs associated with a given order size for either item using PURCHASING WEEK's EOQ table.

The minimum lot size for both items is 100 units, and the penalty cost table looks like this:

No. Units Ordered	Whisks	Disks
100	\$500	\$700
200	200	400
300	0	0
400	200	400
500	500	700

The table showed that the optimal order size (no penalty) would be 300 units for each item—under ordinary circumstances, with no discounts and no storage space limitations.

But the only storage space available can accommodate just 400 units of either or both items. Thus, Elrow must determine the optimal order quantity under the given limitations of storage space.

**How many Whisks and how many Disks should Elrow order?**

(Answer on Page 40)

**Needed: Kid-proof plastic for Jukebox base**



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## Problem II

### The Cost of Space

After working out the previous problem, Elrow Driggers noted that considerable savings in space and money could be made if the packaging of Whisks could be improved.

So he contacted his Whisk supplier, and the two of them developed a new package that would allow two units to be stored in the same amount of space previously needed for one item. There was only one trouble: The new package was more expensive. And the minimum order quantity still was 100 units.

So Elrow took the higher cost figures and went ahead to compute a new penalty cost table for Whisks:

No. Whisks Ordered	Penalty Cost of New Package
100	\$530
200	240
300	50
400	260
500	570

This posed two questions: Would it be economical to use the new package, and, if so, how many Whisks and Disks should be ordered?

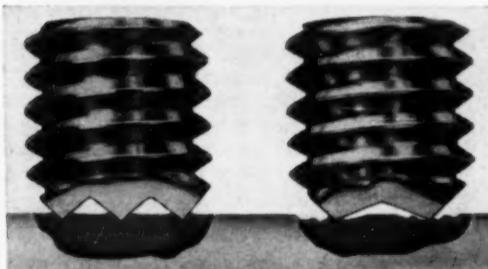
(Answer on Page 40)

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# New Jersey P.A.'s Discuss Cost-Saving Methods

Newark, N. J.—The profit squeeze and areas in which purchasing can effect savings were the topics of discussion at a pre-meeting forum of the North Jersey Purchasing Agents Assn.

Purchasing spends 45% of the sales dollar in the chemical industry, said G. F. Polzer, Jr.,

vice president, Witco Chemical Co., New York. "It is in these areas that more total dollars can be saved."

He reported that, although chemical industry gross sales have increased since 1959, net income has decreased. Polzer cautioned P.A.'s not to be com-

placent about cost-cutting possibilities.

Substitution of less costly materials without influencing product quality and substitution of more costly materials were two roads he suggested be re-investigated for savings. "In some instances," he said, "paying more for a material will be outweighed by greater yield and/or less costly processing materials."

Polzer singled out materials handling and transportation costs for revaluation, too. He mentioned that purchasing could effect savings in this area by being thoroughly familiar with:

- Materials handling problems within company plants. It is possible to have truck shipments unloaded in different areas in a plant without paying a premium, he said. This can eliminate double handling.

- Full utilization of mixed car-loads and/or mixed tank wagon shipments.

- Possibilities of converting drum purchases to bulk.

- Manufacture in transit privileges. This is an area where purchasing should work very closely with the traffic department, he said.

- Possibilities of savings by purchasing in truckload lots vs. LCL.

Inventory control, timing of purchases, and sales potential of suppliers were other areas where savings could be effected, Polzer advised. "Choosing suppliers who could be customers of your sales department is logical when all other factors are equal," he said.

## International Starting Two New Carton Mills

New York — International Paper Co. is building new plants for making corrugated shipping containers in Larimore, Mo., and Northlake, Ill. The plants will augment present facilities in St. Louis and Chicago.

The new Missouri plant, scheduled to go into operation in July, will cover 85,000 sq. ft. The 260,000-sq.-ft. Illinois facility is expected to begin production in October.

In another development in the paper industry, Champion Paper & Fibre Co., Hamilton, Ohio, moved into the merchandising field by acquiring Carpenter Paper Co., Omaha, Neb.

Champion manufactures fine printing papers and other paper products. Carpenter distributes paper in 26 states in the Midwest, Far West, and Southwest. Carpenter will operate as a wholly owned subsidiary of Champion and will continue to distribute the products of other companies as well as those of Champion.

## AMC Sets Up Program To Trade in Brake Shoes

Detroit — American Motors Corp. announced an exchange program on brake shoes which it says will give Rambler owners a 30% savings on regular replacement costs.

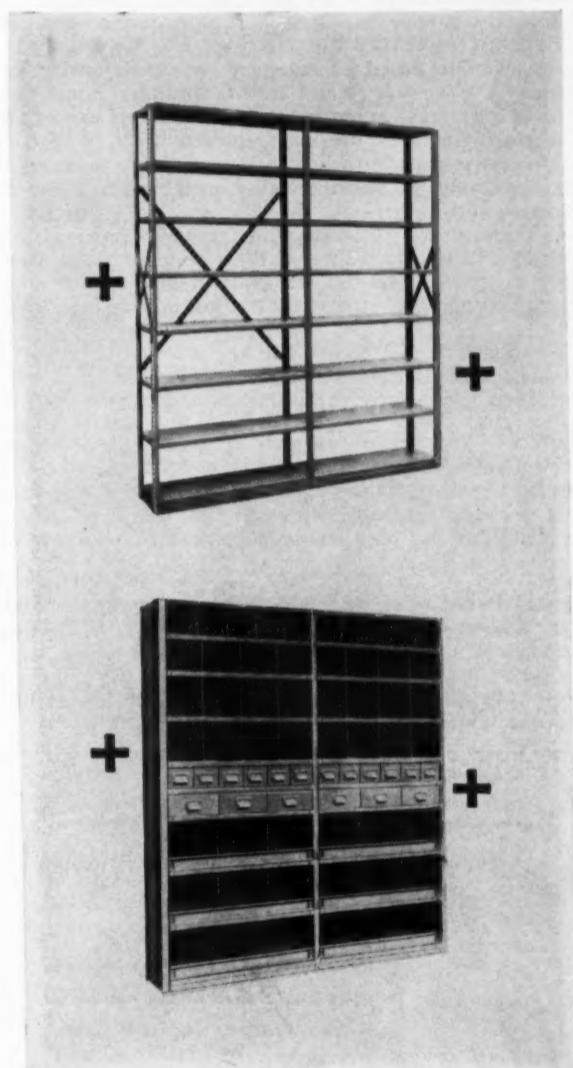
The idea: Owners return worn brake shoe cores to Rambler dealers and obtain cores with new linings bonded to them. American Motors then bonds new linings to the returned shoes and sells them to someone else. In this way, the consumer pays only for the new linings, not the shoes.

Only cores which are in "like-new" condition will be used in the exchange program, said general parts and accessories manager John S. Krider. The units carry the same warranty as any replacement part: 90 days or 4,000 mi.

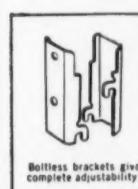
Fleet owners, like the customer, must make the exchange through a dealer, American Motors said.



PAST PRESIDENTS HONORED: Tri City P.A. Assn. paid tribute to former leaders at special meeting. Group included (front, l-r): LeRoy Wagner; M. O. Hult; Frank Macy; W. M. Davis; F. D. Kettering; (back) Ted Sterrett; George Thomas; E. W. Strohbehm; L. C. Minnehan; T. B. Bolman; Leo Keller; N. J. Clark; Earl Collison; K. L. Dehlert; and K. W. Shricker, current president of the Purchasing Agents Assn.



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**DELUXE**

# Foreign Perspective

APRIL 10-16

**Bonn**—European millers of fine-gage steel, not fully recovered from last fall's heavy layoff in export orders to countries outside the Common Market, had to face up this week to a sudden and unexpected reduction in prices.

Cold-rolled sheet fell from \$140/ton quoted at the beginning of March to \$132 last week. At the same time, the price of hot-rolled sheet dropped from \$135 to \$130 per ton.

A spokesman of the European Coal and Steel Community said that the downward price trend was likely to persist as long as Europe's automobile builders continue to cut back production to meet the current trading pattern. The surplus in fine-gage sheet is already so noticeable that many users and finishers are running their stocks down, and so adding further downward pressure to prices, industry sources note.

**London**—The Transformer Manufacturers Assn. is up in arms over last week's ruling by the Restrictive Practices Court that banned price fixing and other restrictions in the industry as contrary to the public interest.

The association argues that the ruling can "only intensify the problems of the industry in the home market. Still more serious is the fact that it must impair its ability to develop successfully in the highly competitive export market."

The association based its argument on the following line of reasoning: A price war would lead to unstable home market, resulting in a decrease in the funds set aside to get export orders, such as employment of overseas representatives. The banning of export agreements providing for pooled information about foreign markets also would be a serious handicap, the TMA contended.

In its decision, the court rejected the export argument, commenting that it was unlikely that there would be any lessening of efforts to secure exports. It also said that the exchange of information about foreign markets did not appear to be of great value.

To the contrary, the court said, the end of the export pact would help exports because it would abolish level bidding. This practice is intensely disliked abroad.

**Montreal**—Proposal to regulate Canadian for-hire motor carriers operating on an international and interprovincial basis was strongly opposed by the Canadian Industrial Traffic League, which represents Canada's shippers. At the same time, the league reaffirmed its position in favor of provincial control of trucking now in effect.

**Ottawa**—Postal rates on eight-ounce packages, merchandise samples, and printed matter going from the U.S. to Canada will be reduced, effective July 1. Rates on eight-ounce packages will be cut from 4¢ to 3¢ on the first two ounces, and from 2¢ to 1½¢ for each additional ounce. Minimum charge of 10¢ remains the same.



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## Foreign News in Brief

### New Synthetic Fiber

**Tokyo**—Toyo Koatsu, fertilizer firm, said its plant in Hokkaido has begun commercial production of Yurilon, a new synthetic fiber made from rice bran oil, urea, and ammonia.

The fiber is said to be 10% lighter than nylon or acryl fibers, possess firm body texture, good dyeing and heat-resistance properties, and thermal qualities similar to wool.

Toyo will market Yurilon for use in wool-blend or nylon-blend fabrics in Japan and later in world markets. Production right now is at a 1-ton/day rate but it will be stepped up to 10-tons/day soon, the company said.

### Army Buys Japanese Parts

**Tokyo**—Toyota Motor Co. signed a contract with the U. S. Army Procurement Agency in Japan, for \$4,426,574.69 worth of motor vehicle parts. The procurement order is for 1,550 types of auto service maintenance parts for weapon carriers and army cargo trucks. Delivery is due by the end of November.

### African Information Office

**San Francisco**—John L. Wilks & Associates, public relations firm here, has established an African information service which will be available to business firms and the general public on the West Coast. The new department will maintain files on key African personnel, both in the U. S. and Africa, and on Americans in official and business positions who have important connections with African countries.

### New Alitalia Office

**New York**—Alitalia, Italy's national airline, opened a Hartford, Conn., office under management of district sales manager, Jerome P. Sheehan.

### Nippon Gets Order

**Tokyo**—Nippon Sewing Machine Co. received an order for 9,000 units of portable typewriters worth \$214,000 from its U. S. sales subsidiary, Brother International. Nippon said the portables will be shipped out of Japan between April and August. Current monthly production of 500 units will be stepped up to 5,000 August, according to the company.

### Alcan Expands

**Montreal**—Aluminum Co. of Canada Ltd., operating subsidiary of Aluminium, Ltd., has purchased Cochrane Foilwires, Ltd., of Rexdale, Ont. Cochrane is a maker of aluminum rigid foil containers, a market growing at the rate of 16%/year. Raw material for the new division will be supplied from Alcan's recently expanded foil mill at Kingston, Ont.

Rigid foil containers are used primarily in the bakery goods field as pie plates. Other uses: containers for processed foods, frozen foods, confectionaries, and cheeses.

### Hitachi Plans New Plant

**Tokyo**—Hitachi, Japan's largest manufacturing complex, plans to put roughly one third of a nearly \$100-million plant outlay into heavy electrical equipment. The expenditure is planned for fiscal 1961, which started this month. In heavy electrical goods, Hitachi is about neck and neck

with Tokyo Shibaura (Toshiba), General Electric affiliate in Japan.

Electronics will take about \$19-million of Hitachi's outlay; appliances will account for \$13-million; and research almost \$10-million. All told, Hitachi said capital plant expenditures in the next fiscal year will be 15% higher than in the current year.

## Answers to Strategy Game on Page 38

### Answer to Problem I

P.A. Elrow Driggers saw that he could not get by without penalty costs since his limited storage space was unable to accommodate the optimum order of 300 Whisks and 300 Disks. He therefore had to figure out what total order (400 units) would result in the lowest penalty costs.

Following this line of reasoning, he saw from his penalty cost table that if he were to order the optimum quantity of Whisks (300 units), he could order only 100 Disks—at a penalty cost of \$700. So he went ahead and worked out another table for the total penalty cost for each order combination that added up to 400 units.

This is what he got:

Whisks Ordered	Disks Ordered	Total Penalty Cost
300	100	\$700
200	200	600
100	300	500

Thus he could see at a glance that he should order 100 Whisks and 300 Disks.

### Answer to Problem II

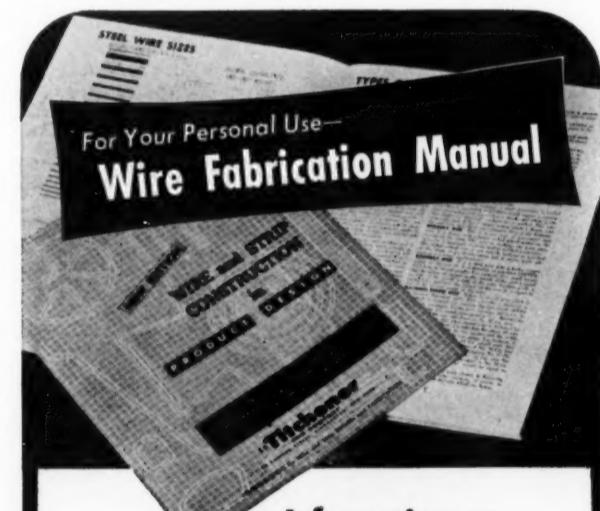
The P.A. saw that he needed another total penalty cost table constructed on the basis of the new, more expensive Whisk package.

Now if he ordered 100 Whisks, his penalty cost would be \$530 and he would have room to store 350 Disks. But since the orders had to be in quantities of 100 units, he could order only 300 Disks without penalty cost on that item—but he would have some unused storage space on his hands.

His new penalty cost table, therefore, looked like this:

Whisks Ordered In New Package	Disks Ordered	Total Penalty Cost
100	300	\$530
200	300	240
300	200	450
400	200	660
500	100	1,270

The P.A. saw that by using the new Whisk package, he could bring his total penalty cost down to \$240. So, despite the higher price, the new package clearly was worth while, and Driggers went ahead and ordered 200 Whisks and 300 Disks.



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# Gradual Increase in Orders Seen by Steel Buyers

(Continued from page 1) despite the increase of steel production to nine-month highs, was one of scattered price cuts and other concessions.

• Base price of cold rolled strip steel was reduced to \$7.425/100 lb. in the Chicago area from \$7.525.

• Atlantic Steel Co., Atlanta, pressured by imports, cut prices of reinforcing bars by about \$5/ton.

• Galvanized base and extras had been reduced earlier, making it nearer the price of galvanized. Fairless black plate down 10¢/cwt. and electrolytic tin plate were in an earlier announcement.

• Freight allowances showed little letup. As an example, New York area warehouses said they still were absorbing part of the 62¢/cwt. transportation charge on shipments to points on the Hudson River.

But there may be some stiffening of attitudes by suppliers after midyear.

A Cleveland warehouse spokesman felt that, as business continues to improve, service centers will try to obtain "a premium of some sort for the services they now give away." He cited such examples as palletizing, marking for production, close tolerance cutting.

One large New England warehouse operator predicted an easing of price pressure by early summer. He noted a pickup in flat roll steel and a "great demand for tinplate." Other New England warehouses reported a galvanized steel pickup reflecting the seasonal upswing in construction.

Atlanta warehouse operators,

noting an upturn in general structural shapes, see foreign competition as a major deterrent to price hikes. "As far as structural rods are concerned," he said, "I don't suppose we'll ever recover that portion of the market from foreign producers."

Quite clearly, the buyer holds the key to the price situation in the steel industry. The NAPA's Steel Committee survey indicated that:

• About 50% of the buyers re-

porting are operating with lower steel inventories.

• More significantly, 96% say they can obtain mill requirements in 30 days or less lead time.

This points up the complaint of one East Coast warehouse operator who said short mill delivery times have diverted so many orders from warehouses that he could see no real pickup in service center business until lead times reach the 30- to 60-day range.

## Henry Ford II Urges P.A.'s to Hunt World-Wide Sources for Supplies

Birmingham, Ala. — Henry Ford II last week called for a worldwide "sourcing" of parts, tools, and raw materials. This was seen as further evidence that it may assemble a small car in the U.S. made with foreign parts.

In a talk at a meeting of the Southeast Research Institute, Ford said, "In many instances, a low-cost imported part or component may make it economically feasible to produce or assemble in the U.S. a complete product

that otherwise would be produced abroad, or not at all."

For over a year, Ford has been working on a small, four-cylinder car called the Cardinal. Reportedly, engine and transmission assemblies will be imported for the car, either from Ford plants abroad or from other manufacturers. In addition, a recent report from London said that Ford had awarded Burman & Sons (Birmingham, England) a \$1.4-million contract to supply steering gears for the Cardinal.

Ford, in his speech last week, said, "Imported parts create added production and added work for Americans." He said it is "disturbing to see vigilante warfare being conducted against such exports."

Some industry observers point out that imported parts can build a two-way bridge. Budd Co., for example, has just completed dies for a new model program of Citroen, and dies for the Anglia, a new model English Ford, were processed in Detroit. In addition, Volkswagen buys 60% of its steel in Detroit. Currently, American Motors imports the Metropolitan, made entirely overseas to AMC's design by Austin of England.

## Alcoa Increases Prices On Small Ingot Orders

(Continued from page 1) man said no price change had been planned, but "it is certain the matter will be put under consideration immediately."

Here is how Alcoa's old and new schedules compare:

Weight	New	Old
Under 500 lb.	10¢/lb.	6¢/lb.
500-1,999	6¢	4¢
2,000-4,999	4¢	2¢

Unchanged are the over 5,000-lb. charges: 2¢ for 5,000-9,999 lb., 1¢ for 10,000-19,999 lb., ½¢ for 20,000-29,999 lb. There are no quantity extras over the base 26¢ price on orders of 30,000 lb. and above.

In the aluminum smelting industry, some prices moved in the opposite direction last week. Decreases ranging from ½¢/lb. to 1¢/lb. were announced for some aluminum alloys. Smelters that initiated the decreases said their prices had been weakening recently because of the heavy competition.

### Surplus Fish Story

Kearny, N. J. — Expansion at Western Electric's plant here has created a unique problem for the firm's purchasing department.

It all started back in 1929 when Western Electric ditched plans for a new building, for which the foundations had already been dug. The concrete-lined hole eventually filled up with water and, as a precaution against mosquito larvae, the improvised pool was stocked with goldfish.

Now Western Electric wants to build on the site and is looking for someone to take the goldfish off its hands (free of charge). Present population of the pool: 3,000 to 5,000.

This Week's

## Purchasing Perspective

APRIL 10-16

(Continued from page 1)

report notes strength in new orders and adds this comment on buying policy: "Anticipating an upward trend in business, buyers of production materials are starting to place orders for future deliveries of materials. . . . It can be assumed that production material orders for future delivery are felt necessary so that delivery will coincide with sales increases."

• In steel centers, production rates are picking up, automakers appear to be coming back into the market, and an undercurrent of orders from a broad base of buyers has been stirring. But, comments one Cleveland producer: "We're still skittish about forecasting upturns after a year of pinning business turnarounds to a relatively specific time, and then postponing it, month after month."

• In machine tools, manufacturers are watching closely how their new-order backlog moves. Most appear to be waiting for the Administration to act on depreciation liberalization proposals. "A lot of customers are in the same boat we are," one cutting tool maker said. "A better depreciation break would bring them back to us in droves."

• Also from the Midwest: Auto sales hit a new high for the year last month. Retail sales of farm equipment are running about 5% to 10% ahead of last year. Allis-Chalmers is looking for a 25% increase in its construction machinery business in 1961.

• But in Washington, Administration officials struggle to cope with the unemployment problem, a headache due to worsen even while business conditions improve generally.

• • •

But just to prove that things never were as bleak as they seemed, here's a bit of Pittsburgh humor that made its way around purchasing departments there in recent weeks. The box

NEG.	FRL	FRI	THU	WED	TUE	MON.
8	7	6	5	4	3	2
16	15	14	13	12	11	9
23	22	21	20	19	18	17
31	30	29	28	27	26	24
38	37	36	35	34	33	32

• Thus the calendar is arranged for customers who place orders on the seventh for delivery on the third.

• And because most customers want orders shipped by Friday, it provides two Fridays in every week. Seven extra days also are allotted at the end of the month to handle shipments that must move before the first of next month.

• No first of the month is provided, however, so obviously there are no bills to pay. And the 10th and 25th also have been omitted so that bothersome invoice payment terms can be ignored.

• Nonproductive Saturday's and Sunday's also are out, eliminating weekend overtime charges on rush orders. "Negotiation Day" replaces Sunday, providing time for weekly review and discussion of requests for improved delivery.

## ICC Tries to Rescue New Haven Line

Washington — The Interstate Commerce Commission has declared that the financially ailing New Haven Railroad is still "a vital artery of transportation," which must not be allowed to collapse.

In an interim report on its investigation into the New Haven's financial woes, the commission said that bankruptcy and a subsequent reorganization would not alone solve the railroad's long-standing problems.

The ICC said the primary cause of the New Haven's difficulties is its "chronic and staggering" passenger deficit, estimated at up to \$138 million for the past decade. Secondary causes, it said, are the blunders of management, past and present, since December.

extensive hurricane and winter storm damage, strikes, heavy state and local taxation, and other factors.

The commission will come up later with its formula for rescuing the New Haven. The purpose of the interim report was to squelch speculation that it would recommend bankruptcy as the sole solution.

The New Haven at the end of January listed current assets of nearly \$23-million and liabilities of \$47-million. It has some \$23-million of principal payments on debt coming due in 1961, in addition to \$6.5-million in interest. The ICC has guaranteed three emergency loans totaling \$11.5-million for the line since December.

## CAB Ruling Clears Way For Airlines to Cut Rates On Some Freight Hauls

Washington — The Civil Aeronautics Board permitted four airlines—American, Trans World, United, and Flying Tiger—to put into effect reductions of about 20% in air cargo rates for certain commodities moving from the West Coast to Midwest and East Coast points.

These commodities include chemicals, ceramics, electrical equipment, engine parts, metal shapes, film, furniture, hardware, hand tools, household appliances, machinery and machine parts, ordnance stores, printed and advertising matter, and rubber products.

Sample reduction: Los Angeles to New York commodity rate will be cut from \$19.90 cwt. to \$15.95.

The CAB cleared the way for the reductions by dismissing complaints of two air freight forwarders—Airborne Freight Corp. and ABC Air Freight—that the cuts would not leave the freight forwarders a reasonable profit.

In another action, the CAB gave formal approval to the merger of United and Capital Airlines, paving the way for United to become the nation's biggest air carrier. United plans to begin consolidated operations over Capital routes by June 1.

# States Map Action in Price-Fixing Damage Suits

(Continued from page 1) counsel to President Truman and President Kennedy's liaison man with the outgoing Eisenhower Administration, to handle pending and potential litigation growing out of the cases.

Another defendant, Westinghouse Electric Corp., held its annual meeting in Pittsburgh last week. President Mark W. Cresap, Jr., said he hoped to avoid the expense of prolonged damage suit trials through settlements or "voluntary restitutions." However, he said no such settlements had been made and that if customers pursue damage suits, "we will take all steps to protect the interests of our stockholders in the courts."

Cresap also proposed an industrywide "code of ethics," which would establish standards of conduct and performance by the electrical industry to safeguard it from antitrust violations.

In Philadelphia, meanwhile, District Judge J. Cullen Ganey gave five electrical equipment manufacturers until June 15 to answer the joint U.S.-TVA \$12-million civil damage suit for alleged overcharges on circuit breaker prices. Original deadline was April 6.

More activity relating to the electrical cases is scheduled for later this week when Sen. Estes Kefauver (D-Tenn.) will open two days of hearings before his Senate antitrust and monopoly subcommittee.

Kefauver has been close-mouthed about what he's aiming to do. He has said the "full picture of the conspiracy" has never been disclosed publicly since the defendants' guilty and no defense pleas kept them from an open trial. "For this reason we cannot know what changes in the law may be necessary to prevent this type of activity," Kefauver said. "Despite the recent convictions, there are reports that identical bidding is continuing in the electrical industry."

What this means is that the committee will move to keep alive interest in the electrical equipment cases by attempting to

make public new details of how the admitted conspiracy started and how it was carried out. But Kefauver will also attempt to attach some responsibility for the conspiracies to top brass of the companies named in the government's indictments. Hearings are scheduled for April 13 and 14.

Other activity centering on pricing:

• **The Bureau of Reclamation** said it received eight identical bids (\$478,000) on aluminum steel-reinforced transmission cable for one of its dam projects. The bureau is reviewing the bids and has passed information rigging.

about them to Justice for its own inquiry.

• **Commerce Secy. Hodges** is working on a code of business ethics which he will encourage trade associations and other business groups to sponsor. It's not completed yet, but it's certain the code will admonish businessmen to avoid activities which border on price-fixing conspiracies.

• **North Carolina state officials**, in an effort to stem an apparent wave of identical bids submitted on state purchases in recent months, have launched a campaign to strengthen state antitrust laws and stamp out bid rigging.

## Drug Manufacturers Begin Refunds On Purchases by Welfare Recipients

(Continued from page 1) button of drugs through private pharmacists. Twenty-six states now are in this category.

California provides a typical example of how the program works: Qualified public welfare recipients entitled to medical care go to a doctor of their own choice. If the doctor feels that drugs are necessary, he prescribes them on a form supplied by the state. This is taken to any pharmacy, and the pharmacist bills the county welfare department, which in turn bills the state. At the end of the month, the state determines the number and dollar value of the prescriptions filled with the drugs of the participating manufacturer (in this case, Merck) and receives a rebate on the total.

Merck, Squibb, and Robinson are offering rebates on purchases of their products retroactive to Jan. 1. Some states, however, may find it difficult to provide the documentation necessary to obtain refunds for the first few months of the year unless they already have been breaking down prescriptions by manufacturer's name for other purposes.

California, for instance, had no such system, so its rebate for January was determined through negotiation between Merck and

the Dept. of Social Welfare. The agreed on figure of \$4,485.20 was based on the results of a survey of two-thirds of the pharmacists filling welfare prescriptions.

The state now has coded the names of the drug manufacturers and has asked pharmacists to put the code number on welfare prescriptions. When the prescriptions are received by the state, they will be run through IBM machines to determine correctly each drug manufacturer's sales.

While Robinson and Squibb also will make retroactive rebates, they want to know exactly to the penny the amount involved and will not negotiate the amount as Merck did with California.

The refund program could result in large savings for the states. Florida officials predict that the state would save \$360,000 a year if all drug manufacturers offered the plan. California sees a potential savings of \$1.2-million annually. On Merck products alone, California expects to save \$75,000 this year.

The drug companies report that, in addition to Florida, California, and Rhode Island, states showing strong interest in the rebate program include: Connecticut, Iowa, Kansas, Ohio, Oregon, Pennsylvania, and Wisconsin.

## Late News in Brief

### Dow Cuts Price

Midland, Mich.—Dow Chemical Co. reduced by 2¢/lb. the price of p-tert-Butylphenol, ingredient used in making phenolic coatings resins such as insulating varnishes, enamels, floor and spar varnishes. New tankcar price: 23½¢/lb. carlot: 25½¢/lb., packaged in bags. The 2¢ reduction applies to all quantities.

### Aluminum Alloys Prices Dips

Chicago—Secondary aluminum smelters in this area cut the price of aluminum ingot alloys made from scrap aluminum ½¢-1¢ per lb. Low copper alloy ingots used chiefly in diecasting were cut ½¢/lb. Copper bearing alloys used in permanent molds were cut 1¢/lb. Secondary smelters in the East and elsewhere followed.

### GFC to Unveil New Foam

New York—General Foam Corp. will introduce a new urethane foam aimed at the shoe industry. Called XX-Hi-D, the material is said to combine the lightness of urethane with the firmness of sponge rubber.

### Du Pont to Market "Lucite" Paint

Wilmington, Del.—Du Pont Co. will market a heavy-body wall paint, which it said will not drip, run, or spatter. Trademarked "Lucite," the new paint is an acrylic-type emulsion.

### CAB Approves Air-Ground Pool Pact

New York—The Civil Aeronautics Board has approved a "cooperative working arrangement" between Yale Express System and Wings and Wheels Express, an air freight forwarder. On April 17, the two companies will start pooling equipment and facilities. The two companies say this will bring shippers and consignees in Yale's New England and Middle Atlantic area "One delivery day closer" to 38 markets served by Wings and Wheels.

## Product-Conscious P.A.'s Advance As R&D Outlays Continue to Soar

(Continued from page 1) increase several fold during the next few years. McGraw-Hill economists forecast:

- An 84% boost in research outlays by 1970.
- Doubling of sales in new products during the next five years.

• Products not made in 1959 accounting for more than 15% of total sales of machinery, instruments, and transportation equipment industries by '63.

Experience has shown that technical developments multiply like rabbits—one discovery leads to half-a-dozen more. Researchers, for example, are now hard at work on developing many new uses for such known principles as thermoelectronics, fuel cell, and solid state electronics (microelectronic circuits had a total market last year of \$1.5-million; forecast for 1965, a staggering \$70 million). Computer companies are making smaller, faster, and cheaper units designed to take over more production and clerical jobs, while automation is rapidly expanding its industrial toehold.

The electric power industry expects a substantial number of plants to be atom powered by 1970. But by then metro-hydrodynamic generation (MHD) may emerge from the laboratory and obsolete atomic power.

By 1970, the building industry hopes to use complete prefabrication techniques, and many metal products may be produced by direct reduction of ores, powder

metallurgy, and continuous casting techniques.

The transistor shows, more graphically than any other recent development, the tremendous result a single lab breakthrough has on existing products.

This tiny device has affected every piece of electronic and control equipment designed in the past five years.

The first transistor was developed by Bell Labs in 1948. Last year, the devices accounted for \$300-million in sales with a half-billion-dollar market forecast for '65.

Plastics provide a good example of how R & D dollars affect unrelated industries. Development of new plastics has completely altered the material balance in a dozen areas and changed product designs in everything from screws to refrigerators.

Total U.S. plastic production has zoomed from 2.2-million lb. in 1950 to over 6-billion lb. this year. And the performance of individual plastics has been even more startling. Polyethylene, for example, a 100-million lb./yr. newcomer in '52 sold over 1.2-billion lb. last year.

Materials coming out of the labs have usually been high priced at first, but the record books show that prices come tumbling down as soon as volume and competition build up. Transistors that once sold for as much as \$50 now sell for 50¢, while polyethylene, which had a 47¢/lb. tag only nine years ago, now sells for around 26¢/lb.

## Price Changes for Purchasing Agents

### Item & Company

Amount of Change  
New Price  
Reason

### INCREASES

Antimony, 99.5%, Nat'l Lead, blk., fob Laredo, lb.....	.035	.325	tight supply
99.6% & 99%, U. K., blk., lb.....	.025	.2969 & .2875	tight supply
Cadmium, lb.....	.10	\$1.60	short supply
Antimony oxide, crlts., lb.....	.035	.30	metal boost
Glass bottles, Anchor Hocking.....	5%	....	industry move
Plumbing brass goods, Sterling Faucet, April 24.....	5%-7%	....	cost incr.
Tin salts, pot. stannate, lb.....	.005	.798	metal firmness
Sodium stannate, lb.....	.006	.658	metal firmness
Tin crystals, anhyd., lb.....	.006	\$1.026	metal firmness

### REDUCTIONS

Reinforcing bars, Atlantic Stl., ton.....	\$5.00	\$100.00	competition
Gum rosins, N. Y., crlts., Katy, Mary, cwt.....	.60	\$14.90	quiet demand
Nancy, cwt.....	.75	\$15.00	quiet demand
Window glass, cwt.....	.85	\$15.65	quiet demand
Water white, cwt.....	\$1.00	\$16.00	quiet demand
Casein, Agr., crlts., lb.....	.0025	.1575	good supply
Gasoline, upstate N. Y., Mobil, dkr. tnkwgn., gal.....	.009	.138	competition
P-tert-butylphenol, dow. crlts., lb.....	.02	.255	broaden market
Spray-applied organic coating, unichrome super 5300 series, mtl. & thermit, 100-dms. and up, lb.....	.08	.59	prod. econs.
Aluminum alloy ingot, high copper group, lb.....	.005	....	competition
No. 380 (1pc, 2pc, zinc), No. 4 deoxidizing, piston, 355,108-319, lb.....	.01	....	competition
Rigid steel electrical conduit.....	5%	....	competition

## WHAT'S NEWS IN ENJAY TECHNICAL SERVICE



### Enjay helps reduce cost of 90°C vinyl wire insulation...

An important part of Enjay Technical Service is developing useful new products that reduce costs, yet maintain performance. Ditridecyl phthalate for use in plasticizing vinyl wire insulation is a good example of this research activity. By tests, such as the oven aging shown above, Enjay was able to prove that DTDP, made from Enjay tridecyl alcohol, performs as an efficient, non-volatile plasticizer for 90°C wire — yet reduces plasticizer cost.

Test results, at right, show that the insulation exceeds the U.L. Specifications.

Enjay research facilities and technical skills are available to customers in the vinyl wire, film and sheeting industries.

If you would like to receive a free copy of our new Technical Bulletin No. 20 on Enjay oxo alcohol for plasticizers, write to 15 West 51st Street, New York 19, N. Y.

#### TEST RESULTS: 7 DAYS @ 121°C

	U. L. Specification Minimum	DTDP Plasticizer
Elongation	65% retention	100% retention
Tensile Strength	65% retention	101% retention
Dielectric Strength	50% retention	127% retention
Insulation Resistance*	.01 megohm based on 1000 ft.	0.36 megohm based on 1000 ft.

\* 1 day and 7 days @ 113°C.

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